

ANTONIOS G. MIKOS

Curriculum Vitae

Web site: <http://mikoslab.rice.edu/>

E-mail: mikos@rice.edu

Education

Ph.D. (Ch.E.), Purdue University, 1988
M.S.Ch.E., Purdue University, 1985
Dipl.Ch.E., Aristotle University of Thessaloniki, Greece, 1983

Honorary Doctorates

Doc. Hon. Causa, Aristotle University of Thessaloniki, Thessaloniki, Greece, 2019
Doc. Hon. Causa, University of Crete, Heraklion, Crete, Greece, 2018
Hon. Prof., Chinese PLA General Hospital, Beijing, China, 2018
Hon. Prof., Sichuan University, Chengdu, China, 2012

Professional Experience

2025- Distinguished Visiting Professor, School of Materials Science and Engineering, Tsinghua University, Beijing, China
2017-2023 Director of National Institutes of Health Center for Engineering Complex Tissues, Rice University
2017- Director of Biomaterials Lab, Rice University
2016-2019 Distinguished Visiting Professor, School of Materials Science and Engineering, Tsinghua University, Beijing, China
2013- Professor of Chemistry and Materials Science and NanoEngineering, Departments of Chemistry and Materials Science and NanoEngineering, Rice University
2008- Louis Calder Professor of Bioengineering and Chemical and Biomolecular Engineering, Departments of Bioengineering and Chemical and Biomolecular Engineering, Rice University
1999-2008 John W. Cox Professor of Bioengineering and Chemical and Biomolecular Engineering, Departments of Bioengineering and Chemical and Biomolecular Engineering, Rice University
1999- Director of John W. Cox Laboratory for Biomedical Engineering, Rice University
1999- Director of Center for Excellence in Tissue Engineering, Rice University
1998 Visiting Associate Professor of Pharmaceuticals and Pharmaceutical Chemistry, Center for Controlled Chemical Delivery, University of Utah
1998 Visiting Associate Professor of Biology and Pathology, Departments of Biology and Pathology, Case Western Reserve University
1996-1999 Associate Professor of Bioengineering and Chemical Engineering, Departments of Bioengineering and Chemical Engineering, Rice University
1992-1996 T.N. Law Assistant Professor of Chemical Engineering and Bioengineering, Department of Chemical Engineering, Rice University
1990-1991 Research Associate, Department of Chemical Engineering, Massachusetts Institute of Technology, and Department of Surgery, The Children's Hospital of Boston, Harvard Medical School
1989 Research Associate, Management of Chemistry Laboratories, Greek Navy
1988 Research Associate, Chemical Process Engineering Research Institute, Thessaloniki, Greece
1983-1988 Research Assistant, Purdue University
1982 (Sum) Research Assistant, Center for Chemical Research, Bratislava, Czechoslovakia

Academies

National Academy of Engineering, 2012
 National Academy of Medicine, 2012
 Texas Academy of Medicine, Engineering, Science and Technology, 2012
 National Academy of Inventors, 2014
 Academy of Athens, 2016
 International Academy of Medical and Biological Engineering, 2017
 Academia Europaea, 2020
 Chinese Academy of Engineering, 2021
 Royal Academy of Pharmacy of Galicia, 2024
 American Academy of Arts and Sciences, 2024
 European Academy of Sciences, 2025

Awards

2025 ***Elected to the European Academy of Sciences***
 2025 ***Global Biomaterials Leadership Award, Chinese Association for Biomaterials***
 2024 ***Elected to the American Academy of Arts and Sciences***
 2024 ***Elected to the Royal Academy of Pharmacy of Galicia***
 2024 ***Biomaterials Global Impact Award***
 2024 ***Faculty Award for Excellence in Research, Teaching, and Service, Rice University***
 2023 ***Cato T. Laurencin Regenerative Engineering Founder's Award, American Institute of Chemical Engineers***
 2023 ***International Award, European Society for Biomaterials***
 2023 ***Jensen Tissue Engineering Award, Tissue Engineering and Regenerative Medicine International Society-Global***
 2022 ***Presidential Award for Mentoring, Rice University***
 2021 ***Elected to the Chinese Academy of Engineering***
 2021 ***1821-2021: Greek Pioneers in Medicine and Biomedical Sciences, Institute for the Advancement of Research and Education in the Arts, Sciences and Technology***
 2020 ***Elected to the Academia Europaea***
 2020 ***Medicine Maker Power List***
 2020 ***Founders Award, Controlled Release Society***
 2019 ***Honorary Doctorate, Aristotle University of Thessaloniki, Thessaloniki, Greece***
 2019 ***Excellence in Teaching Award, Department of Bioengineering, Rice University***
 2019 ***Acta Biomaterialia Gold Medal***
 2018 ***Honorary Doctorate, University of Crete, Heraklion, Crete, Greece***
 2018 ***Chair's Award for Teaching Excellence, Department of Bioengineering, Rice University***
 2018 ***Honorary Professorship, Chinese PLA General Hospital, Beijing, China***
 2017 ***Elected to the International Academy of Medical and Biological Engineering***
 2017 ***James E. Bailey Award in Biological Engineering, American Institute of Chemical Engineers***
 2017 ***Shu Chien Achievement Award, Biomedical Engineering Society***
 2016 ***Elected to the Academy of Athens***
 2016 ***Excellence in Surface Science Award, Surfaces in Biomaterials Foundation***
 2016 ***Best Presentation Award, Texas Biomaterials Day at University of Texas at San Antonio***
 2015 ***Lifetime Achievement Award, Tissue Engineering and Regenerative Medicine International Society-Americas***
 2014 ***Elected to the National Academy of Inventors***
 2014 ***Distinguished Engineering Alumnus Award, Purdue University***
 2014 ***Fellow, American Institute of Chemical Engineers***
 2012 ***Elected to the National Academy of Engineering***
 2012 ***Elected to the National Academy of Medicine***
 2012 ***Elected to the Texas Academy of Medicine, Engineering, Science and Technology***
 2012 ***Founding Fellow, Tissue Engineering and Regenerative Medicine International Society***

2012 **Honorary Professorship, Sichuan University, Chengdu, China**
 2012 Fellow, American Association for the Advancement of Science
 2011 **Founders Award, Society For Biomaterials**
 2011 Fellow, Controlled Release Society
 2011 Hershel M. Rich Invention Award, Rice University
 2010 **Food, Pharmaceutical and Bioengineering Award in Chemical Engineering, American Institute of Chemical Engineers**
 2010 **Distinguished Scientist Award - Isaac Schour Memorial Award, International Association for Dental Research**
 2010 **Meriam/Wiley Distinguished Author Award, American Society for Engineering Education**
 2010 Outstanding Presentation Award, Annual Armed Forces Institute of Regenerative Medicine Conference
 2009 Fellow, Biomedical Engineering Society
 2009 Greater Houston Section Award, American Chemical Society
 2009 **Chemstations Lectureship Award, American Society for Engineering Education**
 2009 Best Poster Award for Superior Presentation, Annual Research Conference of W.M. Keck Center for Interdisciplinary Bioscience Training
 2009 Outstanding Presentation Award, Annual Armed Forces Institute of Regenerative Medicine Conference
 2008 Outstanding Chemical Engineer Award, Purdue University
 2008 Distinguished Scientist Award, Houston Society for Engineering in Medicine and Biology
 2007 **Alpha Chi Sigma Award for Chemical Engineering Research, American Institute of Chemical Engineers**
 2007 **Robert A. Pritzker Distinguished Lectureship Award, Biomedical Engineering Society**
 2007 **Edith and Peter O'Donnell Award in Engineering, Texas Academy of Medicine, Engineering, Science and Technology**
 2007 Oral Abstract Scientific Presentation Award, Annual Meeting of the American Association of Oral and Maxillofacial Surgeons
 2005 **Marshall R. Urist Award for Excellence in Tissue Regeneration Research, Orthopaedic Research Society**
 2003 **Huygens Lecturer Award, Netherlands Organization for Scientific Research**
 2003 Innovation Award, Advanced Materials Research Center, Singapore
 2001 **Clemson Award for Contributions to the Literature, Society For Biomaterials**
 2000 Best Poster Award, Materials Research Society Fall Meeting
 2000 Phoenix Pharmazie-Wissenschaftspreis (Pharmaceutical Science Award)
 2000 Fellow, International Union of Societies for Biomaterials Science and Engineering
 2000 Hershel M. Rich Invention Award, Rice University
 1999 Fellow, American Institute for Medical and Biological Engineering
 1998 Young Investigator Research Achievement Award, Controlled Release Society
 1997 Hershel M. Rich Invention Award, Rice University
 1996 Outstanding Young Investigator Award, Materials Research Society
 1996 FIRST Award, National Institutes of Health
 1995 Hershel M. Rich Invention Award, Rice University
 1994 Whitaker Young Investigator Award, Biomedical Engineering Society
 1994 Johnson&Johnson Medical Outstanding Young Scientist Award, Houston Society for Engineering in Medicine and Biology
 1991 Victor K. LaMer Award for Outstanding Ph.D. Thesis, American Chemical Society
 1988, 1985 Sigma Xi Student Research Competition Award
 1983 Technical Chamber of Greece Award

Endowed/Honorary Lectureships

2025 Plenary Lecturer, Second BMEMat-Advanced Materials Joint Symposium and International Meeting on Biomedical Engineering, Jinan, China
 2025 Keynote Lecturer, Academy of Physician Scientists Engines of Ingenuity in Medicine Annual Symposium, Houston, Texas

2025 Distinguished Lecturer, Tsinghua University, Beijing, China

2024 Keynote Lecturer, Boston University, Boston, Massachusetts

2024 Keynote Lecturer, International Symposium on Engineering and Technology for Regenerative Therapy, Kyoto, Japan

2024 Plenary Lecturer, International Forum on the Frontiers of Biomaterials Science and Engineering, Chengdu, China

2024 Plenary Lecturer, Continental European Division-International Association for Dental, Oral, and Craniofacial Research Summer School, Thessaloniki, Greece

2024 Plenary Panelist, World Congress of Tissue Engineering and Regenerative Medicine International Society, Seattle, Washington

2024 Keynote Lecturer, World Congress of Tissue Engineering and Regenerative Medicine International Society, Seattle, Washington

2024 Biomaterials Global Impact Award Lecturer, World Biomaterials Congress, Daegu, Korea

2024 Keynote Lecturer, World Biomaterials Congress, Daegu, Korea

2024 Induction Lecture, Royal Academy of Pharmacy of Galicia, Santiago de Compostela, Spain

2024 Keynote Lecturer, Forum of Biomaterials and Implantable Device Technology, Chongqing, China

2024 Tsinghua Global Vision Lecturer, Tsinghua University, Beijing, China

2023 Plenary Lecturer, Thirty-First Annual Meeting of European Orthopaedic Research Society, Porto, Portugal

2023 Keynote Lecturer, International Summit Forum of Medical Tissue Engineering, Jinzhou, China

2023 Plenary Lecturer, Third International Youth Conference on Lignin- and Collagen-Based Materials, Chengdu, China

2023 Distinguished Lecturer, University of Toronto, Toronto, Canada

2022 Keynote Lecturer, Biomaterials Science and Engineering Frontier Forum and Thirteenth International High-End Forum on Biomaterials, Chengdu, China

2022 Keynote Lecturer, Twenty-Second International Conference on Bioinformatics and Bioengineering, Taichung, Taiwan

2022 Keynote Lecturer, Tissue Engineering and Regenerative Medicine International Society-Asia Pacific Conference, Jeju, South Korea

2021 William T. Butler Distinguished Lecturer, University of Texas Health Science Center at Houston, Houston, Texas

2021 Plenary Lecturer, Virtual Annual Meeting of German Society for Biomaterials

2020 Alkiviades Ch. Payatakes Distinguished Lecturer, Institute of Chemical Engineering Sciences, Patras, Greece

2020 Founders Award Lecturer, Virtual Annual Meeting of Controlled Release Society

2019 Distinguished Lecturer, University of Sydney, Sydney, Australia

2019 Honorary Doctorate Lecture, Aristotle University of Thessaloniki, Thessaloniki, Greece

2019 Plenary Lecturer, Chinese Biomaterials Congress, Dalian, China

2019 Keynote Lecturer, Regenerative Medicine Forum of Biomaterial and Bioprinting Technology, Asia University and China Medical University, Taichung, Taiwan

2019 Keynote Lecturer, National Institute for Food and Drug Control, Beijing, China

2019 Plenary Lecturer, Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China

2019 Plenary Lecturer, Tissue Engineering and Regenerative Medicine International Society-Europe Meeting, Rhodes, Greece

2019 Acta Biomaterialia Gold Medal Lecturer, Annual Meeting of the Society For Biomaterials, Seattle, Washington

2019 C. Dayton Riddle Distinguished Lecturer, Clemson University, Greenville, South Carolina

2018 Keynote Lecturer, Emerging Nanotechnology and Drug Delivery Applications for Cancer Conference, Oklahoma City, Oklahoma

2018 Keynote Lecturer, Eighteenth International Conference on Bioinformatics and Bioengineering, Taichung, Taiwan

2018 Plenary Lecturer, First International Conference on Nanotechnologies and Bionanoscience, Heraklion, Crete, Greece

2018 Honorary Doctorate Lecture, University of Crete, Heraklion, Crete, Greece

2018 Plenary Lecturer, Fifth World Congress of Tissue Engineering and Regenerative Medicine International Society, Kyoto, Japan

2018 Keynote Lecturer, Biennial Congress of International Immunocompromised Host Society, Athens, Greece

2018 Koret Foundation Lecturer, University of California Davis, Sacramento, California

2017 James E. Bailey Award Lecturer, Annual Meeting of American Institute of Chemical Engineers, Minneapolis, Minnesota

2017 Plenary Lecturer, Fall Meeting of Korean Society for Biomaterials, Seoul, Korea

2017 Plenary Lecturer, Twenty-Eighth Annual Conference of European Society for Biomaterials, Athens, Greece

2017 Keynote Lecturer, Second International Conference on Tissue Engineering and Regenerative Medicine, Vanderbijlpark, South Africa

2017 Induction Lecture, Academy of Athens, Athens, Greece

2017 Alumni Lecturer, University of Massachusetts Amherst, Amherst, Massachusetts

2017 Keynote Lecturer, Mayo Clinic Symposium on Regenerative Medicine and Surgery, Scottsdale, Arizona

2017 Keynote Lecturer, Rice University, Houston, Texas

2017 Shu Chien Achievement Award Lecturer, Cellular and Molecular Bioengineering Conference, Kohala Coast, Hawaii

2016 Keynote Lecturer, Eighteenth Annual Meeting of North Carolina Tissue Engineering and Regenerative Medicine Society, Chapel Hill, North Carolina

2016 Plenary Lecturer, International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece

2016 Keynote Lecturer, Second International Symposium on Frontiers in Biomaterial Science, Leipzig, Germany

2016 Keynote Lecturer, World Biomaterials Congress, Montreal, Canada

2016 Distinguished Lecturer, Tsinghua University, Beijing, China

2016 Distinguished Lecturer, University of California Riverside, Riverside, California

2015 Plenary Lecturer, International Bioengineering Congress, Izmir, Turkey

2015 Keynote Lecturer, International Bone-Tissue-Engineering Congress, Stuttgart, Germany

2015 Plenary Lecturer, Second International Conference on Regenerative Biomedical Materials, Wuhan, China

2015 Keynote Lecturer, American Academy of Craniomaxillofacial Surgeons Annual Meeting, Houston, Texas

2015 Harry G. Fair Memorial Lecturer in Chemical Engineering, University of Oklahoma, Norman, Oklahoma

2015 Distinguished Lecturer, Johns Hopkins University, Baltimore, Maryland

2014 Keynote Lecturer, Tissue Engineering and Regenerative Medicine International Society-Americas Annual Conference and Exposition, Washington, D.C.

2014 Edward T. Smith Orthopaedic Lecturer, University of Texas Health Science Center at Houston, Houston, Texas

2014 William F. Neuman Lecturer, University of Rochester, Rochester, New York

2014 Keynote Lecturer, Third Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China

2014 Plenary Lecturer, International Conference on Tissue Engineering and Regenerative Medicine, Pretoria, South Africa

2014 Plenary Lecturer, Thirteenth Congress of the Japanese Society for Regenerative Medicine, Kyoto, Japan

2013 Plenary Lecturer, International Conference on Biomedical Engineering, Singapore

2013 MRI-Huck Distinguished Lecturer, Pennsylvania State University, University Park, Pennsylvania

2013 Fred S. Grodins Keynote Lecturer, University of Southern California, Los Angeles, California

2013 Plenary Lecturer, International Conference on Regenerative Biomedical Materials, Wuhan, China

2013 Keynote Lecturer, Thirtieth Annual Meeting of the Canadian Biomaterials Society, Ottawa, Ontario

2013 Distinguished Lecturer, University of São Paulo, Bauru School of Dentistry, Bauru, Brazil

2013 Keynote Lecturer, Seventeenth Annual Hilton Head Workshop, Hilton Head Island, South Carolina

2013 Michael W. Chapman and Elizabeth Chapman Lecturer, University of California Davis, Davis, California

2013 Zandmer Distinguished Lecturer, University of Calgary, Calgary, Canada

2012 Keynote Lecturer, International Joint Symposium on Oral and Dental Sciences, Yogyakarta, Indonesia

2012 Keynote Lecturer, International Conference on Nanotechnology at the Bio-Medical Interface – NANOBIO 2012, Kochi, India

2011 National Institutes of Health Director's Wednesday Afternoon Lecturer, National Institutes of Health, Bethesda, Maryland

2011 Allan G. Brodie Endowed Lecturer, University of Illinois at Chicago, Chicago, Illinois

2011 Distinguished Lecturer, University of California Davis, Davis, California

2011 Page Morton Hunter Distinguished Lecturer, Clemson University, Clemson, South Carolina

2011 Dean's Lecturer, University of Maryland Dental School, Baltimore, Maryland

2010 Keynote Lecturer, International Bone-Tissue-Engineering Congress, Hannover, Germany

2010 Keynote Lecturer, Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China

2010 Keynote Lecturer, Biomaterials Day at Texas A&M University, College Station, Texas

2009 Keynote Lecturer, Eleventh Annual North Carolina Tissue Engineering and Regenerative Medicine Conference, Winston-Salem, North Carolina

2009 Keynote Lecturer, Annual Meeting of American Institute of Chemical Engineers, Nashville, Tennessee

2009 Keynote Lecturer, Second World Congress of Tissue Engineering and Regenerative Medicine International Society, Seoul, Korea

2009 Twenty-Five Years Celebration Distinguished Lecturer, Institute of Chemical Engineering and High Temperature Chemical Processes, Patras, Greece

2009 Keynote Lecturer, Fourth World Congress on Regenerative Medicine, Bangkok, Thailand

2009 Keynote Lecturer, International Conference on Tissue Engineering and Stem Cell Research Using Nanomaterials – NANOBIO 2009, Kochi, India

2008 Keynote Lecturer, International Conference on Research Strategy of Tissue Engineering, Jinan, China

2008 Keynote Lecturer, Tenth International Symposium on Biomineralization, Lianyungang, China

2008 Keynote Lecturer, Annual Symposium of Baylor College of Medicine Medical Scientist Training Program, Galveston, Texas

2008 Keynote Lecturer, World Biomaterials Congress, Amsterdam, The Netherlands

2008 Keynote Lecturer, Tenth Anniversary Celebration of Korean Tissue Engineering and Regenerative Medicine Society Meeting, Seoul, Korea

2008 Robert A. Pritzker Distinguished Lecturer, Illinois Institute of Technology, Chicago, Illinois

2007 Keynote Lecturer, Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands

2007 Centenary Seminar Series Lecturer, Imperial College, London, England

2007 James Gibb Johnson Distinguished Visiting Lecturer, University of Tennessee Health Science Center, Memphis, Tennessee

2007 Keynote Lecturer, Third Marie Curie Cutting Edge InVENTS Conference, Madeira, Portugal

2006 Keynote Lecturer, International Conference on Biomedical and Pharmaceutical Engineering, Singapore

2006 Keynote Lecturer, Annual Meeting of Japanese Society for Tissue Engineering, Kyoto, Japan

2006 Keynote Lecturer, Symposium on Nanomedicine and Tissue Engineering in Memory of Professor C.J. Lee, National Tsing Hua University, Hsinchu, Taiwan

2006 Koret Foundation Lecturer, University of California Davis, Sacramento, California

2006 Keynote Lecturer, First Marie Curie Cutting Edge InVENTS Conference, Madeira, Portugal

2006 Keynote Lecturer, Rebuilding Humans: The Seattle Tissue Engineering Initiative Symposium, Seattle, Washington

2005 Keynote Lecturer, Annual Meeting of Tissue Engineering Society International, Shanghai, China

2005 Keynote Lecturer, International Conference on Materials for Advanced Technologies, Singapore

2004 Procter and Gamble Lecturer, Iowa State University, Ames, Iowa

2004 Roger Malkin Distinguished Lecturer, Mississippi State University, Mississippi State, Mississippi

2003 Keynote Lecturer, First International Conference on Epithelial Technologies and Tissue Engineering, Singapore

2002 Keynote Lecturer, Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands

2000 Keynote Lecturer, Research Council Meeting of Japan Society of Plastic and Reconstructive Surgery, Nagoya, Japan

2000 Keynote Lecturer, Annual Meeting of Japan Society of Drug Delivery System, Akita, Japan

1999 Distinguished Lecturer, University of Maryland, College Park, Maryland

1999 Keynote Lecturer, Academy of Dental Materials Annual Meeting, Tempe, Arizona

1998 Keynote Lecturer, Bionic Design Workshop, Tsukuba, Japan

1995 Keynote Lecturer, First International Congress on Cellular Therapy & Tissue Engineering, Washington, D.C.

Honors

2025 Chair, Eighth Aegean Conference on Tissue Engineering, Sissi, Crete, Greece

2024 Invited Lecturer, World Biomaterials Congress, Daegu, Korea

2024 Invited Lecturer, American Chemical Society Kathryn C. Hach Award for Entrepreneurial Success: Symposium in Honor of Cato T. Laurencin

2024 Invited Lecturer, National Medical Products Administration, Beijing, China

2024 Invited Lecturer, National Center for Nanoscience and Technology, Beijing, China

2024 Invited Lecturer, Wuzhen Laboratory, Center for Biomaterials and Regenerative Medicine, Wuzhen, China

2024 Invited Lecturer, Osteo Science Foundation Bone Symposium, Napa Valley, California

2023 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

2023 Invited Lecturer, iCANX Talks, Peking University, Beijing, China

2022 **Highly Cited Researcher (Top 1% of Researchers), Clarivate Web of Science**

2022 Invited Panelist, Panhellenic Dental Congress, Athens, Greece

2022 Chair, Seventh Aegean Conference on Tissue Engineering in Conjunction with Fifth International Conference on Regenerative Biomedical Materials, Ioannina, Greece

2022 Research Advisor of Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine

2022 Invited Lecturer, International Symposium on Recent Advances in Drug Delivery Systems – A Tribute to the Late Sung Wan Kim, Salt Lake City, Utah

2021 Invited Lecturer, Virtual Biomaterials Days (Turkey)

2021 Invited Lecturer, International Workshop on Regenerative Medicine, Ulsan, Korea

2021 Research Advisor of Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine

2021 Research Advisor of Bioengineering Outstanding Thesis Award, Rice University

2021 Invited Lecturer, Edward C. Hinds Symposium of the Houston Society of Oral and Maxillofacial Surgeons, Houston, Texas

2021 Acta Gold Medal Invited Lecturer, Virtual Annual Meeting of the Society For Biomaterials

2020 Invited Lecturer, International Symposium on Biomedical Materials for Drug/Gene Delivery in Honor of the 80th Birthday of Jindřich Kopeček, Salt Lake City, Utah

2020 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

2019 Research Advisor of Young Investigator Award, Wake Forest Institute for Regenerative Medicine

2019 Invited Lecturer, Symposium in Celebration of Arnold I. Caplan's 50th Year at Case Western Reserve University, Cleveland, Ohio

2019 Chair, Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China

2019 Research Advisor of Outstanding Research by Hospital Intern Award, Society For Biomaterials

2019 Invited Lecturer, American Chemical Society Industrial and Engineering Chemistry Fellow Award: Symposium in Honor of Nicholas A. Peppas

2019 Invited Lecturer, Regenerative Orthopedics Conference, San Francisco, California

2018 Guest Professor, Weifang Medical University, Weifang, China

2018 Invited Lecturer, Inaugural Symposium on Regenerative Engineering, Northwestern University, Chicago, Illinois

2017 **Highly Cited Researcher (Top 1% of Researchers), Clarivate Web of Science**

2017 Invited Lecturer, Xiang Shan Scientific Conference on Biomaterials and Regenerative Medicine, Beijing, China

2017 Chair, Second International Conference on Tissue Engineering and Regenerative Medicine, Vanderbijlpark, South Africa

2017 Invited Lecturer, International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece

2017 Invited Lecturer, Tissue Engineering and Regenerative Medicine International Society-Europe Meeting, Davos, Switzerland

2017 Chair, Sixth Aegean Conference on Tissue Engineering in Conjunction with Third International Conference on Regenerative Biomedical Materials, Heraklion, Crete, Greece

2017 Research Advisor of Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine

2017 Research Advisor of Medical Scientist Training Program Thesis Publication Award, Baylor College of Medicine

2016 **Highly Cited Researcher (Top 1% of Researchers), Clarivate Web of Science**

2016 Research Advisor of Young Investigator Award, Wake Forest Institute for Regenerative Medicine

2016 Research Advisor of Milton Huppert Graduate Student Award, Medical Mycological Society of the Americas

2016 Invited Lecturer, American Institute of Chemical Engineers Annual Meeting, San Francisco, California

2016 Invited Lecturer, International Center for Materials Nanoarchitectonics (MANA) International Symposium, Tsukuba, Japan

2016 Invited Lecturer, Texas Academy of Medicine, Engineering, Science and Technology Annual Conference, Dallas, Texas

2015 **Highly Cited Researcher (Top 1% of Researchers), Thomson Reuters**

2015 Invited Lecturer, Surfaces in Biomaterials, Scottsdale, Arizona

2015-2017 **Member, Board of Directors, National Space Biomedical Research Institute**

2015 Chair, Second International Conference on Regenerative Biomedical Materials, Wuhan, China

2014 Invited Lecturer, Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas

2014 **Highly Cited Researcher (Top 1% of Researchers), Thomson Reuters**

2014 Chair, Fifth Aegean Conference on Tissue Engineering, Kos, Greece

2014 Research Advisor of Undergraduate Student Award for Outstanding Research, Society For Biomaterials

2014 Invited Lecturer, American Chemical Society Award in Applied Polymer Science: Symposium in Honor of Nicholas A. Peppas

2014-2023 **Program Leader, Craniofacial Program, Armed Forces Institute of Regenerative Medicine II**

2013-2018 **Member, Board of Scientific Counselors, Eunice Kennedy Shiver National Institute of Child Health and Human Development**

2013 Invited Lecturer, TERMIS-Asia Pacific Annual Conference, Shanghai-Wuzhen, China

2013 Invited Lecturer, Mesenchymal Stem Cell (MSC) Conference, Cleveland, Ohio

2013 Chair, International Conference on Regenerative Biomedical Materials, Wuhan, China

2013 Research Advisor of Medical Scientist Training Program Thesis Publication Award, Baylor College of Medicine

2013 Invited Lecturer, Annual Meeting of the Society For Biomaterials, Boston Massachusetts

2013 Invited Lecturer, Annual Translational to Clinical (T2C) Regenerative Medicine Wound Care Conference, Ohio State University, Columbus, Ohio

2012 Invited Lecturer, Society of Polymer Science Japan International Polymer Conference, Kobe, Japan

2012 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

2012 Invited Lecturer, World Biomaterials Congress, Chengdu, China

2012 Chair, International Conference on Nanotechnology at the Bio-Medical Interface – NANOBIO 2012, Kochi, India

2011 **Top 100 Materials Scientist (2000-2010), Thomson Reuters**

2011 Co-Chair, TERMIS-North America Annual Conference and Exposition, Houston, Texas

2011 Invited Lecturer, Days of Molecular Medicine: Re-Engineering Regenerative Medicine, Hong Kong

2011 Invited Panelist, Centennial Celebration, School of Chemical Engineering, Purdue University

2011 Invited Lecturer, Annual Meeting and Exposition of Controlled Release Society, National Harbor, Maryland

2011 Member, Center for Space Medicine, Baylor College of Medicine

2011 Chair, Fourth Aegean Conference on Tissue Engineering, Chania, Crete, Greece

2011 Research Advisor of Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine

2011 Invited Lecturer, Annual Armed Forces Institute of Regenerative Medicine Conference, Clearwater, Florida

2010 Invited Lecturer, Armed Forces Institute of Regenerative Medicine Interim Meeting, Washington, D.C.

2010 Invited Lecturer, Tissue Engineering and Regenerative Medicine International Society- North America Annual Conference and Exposition, Orlando, Florida

2010 Invited Lecturer, Annual BMES Fall Meeting, Austin, Texas

2010 Invited Lecturer, International Biomedical Science and Technology Symposium, Istanbul, Turkey

2010 Research Advisor of Mary Ann Liebert, Inc. Outstanding Student Award, Tissue Engineering and Regenerative Medicine International Society-North America

2010-2014 Member, Musculoskeletal Tissue Engineering Study Section, National Institutes of Health

2010 Invited Lecturer, Annual Meeting of the American Aging Association, Portland, Oregon

2010 Invited Lecturer, European Symposium on Controlled Drug Delivery, Egmond aan Zee, The Netherlands

2010 Research Advisor of Medical Scientist Training Program Publication Award, Baylor College of Medicine

2010-2013 Guest Professor, Shandong University, Jinan, China

2009 Invited Lecturer, Annual Meeting of the Society For Biomaterials, San Antonio, Texas

2009 Invited Lecturer, Annual Meeting of the International Association for Dental Research, Miami, Florida

2009 Chair, International Conference on Tissue Engineering and Stem Cell Research Using Nanomaterials – NANOBIO 2009, Kochi, India

2008-2013 **Program Leader, Craniofacial Program, Wake Forest-Pittsburgh Consortium, Armed Forces Institute of Regenerative Medicine**

2008 Invited Lecturer, Materials Engineering and Sciences Division Plenary Session, Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania

2008 Chair, Third Aegean Conference on Tissue Engineering, Rhodes, Greece

2008 Adjunct Professor, Institute of Basic Medical Sciences, Academy of Military Medical Sciences, Beijing, China

2008 Invited Lecturer, A Celebration of Excellence in Scientific and Engineering Achievement on the Occasion of Nicholas Peppas' 60th Birthday, Austin, Texas

2008 Invited Lecturer, Conference on Regenerative Endodontics, Nova Southeastern University, Fort Lauderdale, Florida

2007 Invited Lecturer, Integrated Research Team Meeting on Nanotechnology Solutions for Long-Term Implantable Devices, Houston, Texas

2007 Invited Lecturer, International Bone Fluid Flow Workshop, New York, New York

2007 Invited Lecturer, Symposium on Musculoskeletal Biology, Stem Cells and Clinical Translation: A Celebration of Arnold Caplan's 65th Birthday, Cleveland, Ohio

2006 Invited Lecturer, International Collaborative Symposium on Stem Cell Research, Seoul, Korea

2006 Invited Lecturer, US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery Systems and Therapeutic Systems, Annual AIChE Meeting, San Francisco, California

2006 Chair, Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria

2006 Invited Lecturer, Conference Celebrating Thirty Years of Robert Langer's Science, Cambridge, Massachusetts

2006 Author of One of Twenty-Five Best Papers Published in Biomaterials 1980-2004

2006 Research Advisor of Sallyport Award, Association of Rice Alumni

2006 Research Advisor of Distinguished Senior Award, Rice Engineering Alumni Association

2006 Invited Lecturer, Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, Pennsylvania

2006 Invited Lecturer, Scientific Conference of Society for Physical Regulation in Biology and Medicine, Cancun, Mexico

2006 Invited Lecturer, International Cartilage Repair Society Symposium, San Diego, California

2005 Invited Lecturer, Pharmaceutical Sciences Symposium Honoring the Career of Professor Joseph R. Robinson, University of Wisconsin, Madison, Wisconsin

2005 Invited Lecturer, Texas/United Kingdom Symposium on Medicine and Medical Devices, Rice University

2005 Invited Lecturer, International Bone Fluid Flow Workshop, New York, New York

2005 Research Advisor of First Prize in Keck Center Annual Research Conference Poster Contest, Gulf Coast Consortia

2005 Invited Lecturer, Symposium on New Trends in Biomaterials-Tissue Engineering, National University of Singapore, Singapore

2005 Chair, Second Aegean Conference on Tissue Engineering, Heraklion, Crete, Greece

2005 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

2005 Invited Lecturer, Tissue Engineering: The Next Generation Workshop, Cambridge, Massachusetts

2005 Invited Lecturer, International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah

2004 Invited Lecturer, Fall Meeting of the Materials Research Society, Boston, Massachusetts

2004 Invited Lecturer, Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, North Carolina

2004 Invited Lecturer, American Institute of Chemical Engineers Annual Meeting, Austin, Texas

2004 Research Advisor of Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University

2004 Research Advisor of James S. Waters Creativity Award, Rice University

2004 Invited Lecturer, First Biennial Symposium on Tissue Engineering and Regeneration, University of Michigan, Ann Arbor

2004 Invited Lecturer, European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands

2004 Invited Lecturer, United Kingdom/Texas Symposium on Tissue Engineering and Regenerative Medicine, Imperial College, London, England

2004 Invited Lecturer, National American Chemical Society Meeting, Anaheim, California

2004 Invited Lecturer, Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii

2003 Invited Lecturer, American Institute of Chemical Engineers Annual Meeting, San Francisco, California

2003 Invited Lecturer, Symposium Tissue Engineering, Netherlands Technology Foundation, Ede, The Netherlands

2003 Invited Lecturer, International Bone Fluid Flow Workshop, Cleveland, Ohio

2003-2007 Member, National Institute of Dental and Craniofacial Research Special Grants Review Committee

2003 Chairperson, Center for Scientific Review Special Emphasis Panel on Advanced Biomaterials, National Institutes of Health

2003 Invited Lecturer, Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana

2002 Invited Lecturer, Polymers in Medicine and Biology: 2002, Rohnert Park, California

2002 Chair, Engineering in Medicine and Biology Society - Biomedical Engineering Society Joint Conference, Houston, Texas

2002 Invited Lecturer, International Conference on Bone Morphogenetic Proteins, Sacramento, California

2002 Invited Lecturer, Smith & Nephew International Symposium on Translating Tissue Engineering into Products, Atlanta, Georgia

2002 Invited Lecturer, Annual Meeting of the Controlled Release Society, Seoul, Korea

2002 Chair, Aegean Conference on Tissue Engineering Science, Mykonos, Greece

2002 Research Advisor of Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University

2002 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

2002 Research Advisor of Tissue Engineering Special Interest Group Student Award, Society For Biomaterials

2002 Invited Lecturer, Edward C. Hinds Symposium on Contemporary Oral and Maxillofacial Surgery, Houston, Texas

2002 Invited Lecturer, Annual Meeting of the Society For Biomaterials, Tampa, Florida

2002 Invited Lecturer, Annual Meeting of the American Association of Anatomists, New Orleans, Louisiana

2002 Invited Lecturer, Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania

2002 Invited Lecturer, Biomaterials - The Next Frontiers Conference, University of Delaware, Newark, Delaware

2002 Invited Lecturer, Foundation for Research and Technology Hellas Conference, Metsovo, Greece

2002 Invited Lecturer, American Association of Pharmaceutical Scientists Workshop, Arlington, Virginia

2002- Adjunct Professor, Department of Oral and Maxillofacial Surgery, University of Texas Health Science Center at Houston, Houston, Texas

2001 Invited Lecturer, Annual Conference on Regenerative Medicine: Rebuilding the Human Body, Washington, D.C.

2001 Invited Panelist, Bioengineering Consortium Symposium on Regenerative Medicine: Growing Tissues and Organs, National Institutes of Health

2001 Research Advisor of Best Poster Award, Baylor College of Medicine M.D./Ph.D. Symposium

2001 Research Advisor of James S. Waters Creativity Award, Rice University

2001 Invited Lecturer, Human Genome Odyssey Conference: The Science, Business, Law and Ethics of Engineering Human Life, Akron, Ohio

2001 Invited Lecturer, Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania

2000 Chair, Materials Research Society Fall Meeting, Boston, Massachusetts

2000 Invited Lecturer, International Symposium on Tissue Engineering for Therapeutic Use, Tsukuba, Japan

2000 Research Advisor of Best Paper Award, Texas Medical Scientist Training Program Conference

2000 Invited Lecturer, Council for the Advancement of Science Writing Annual Briefing, Houston, Texas

2000 Invited Lecturer, Surfaces in Biomaterials, Scottsdale, Arizona

2000 Invited Lecturer, International Symposium on Biomaterials and Drug Delivery Systems, Cheju Island, Korea

2000 Research Advisor of Graduate/Postdoc Award on Innovative Aspects of Controlled Drug Release, Controlled Release Society-Capsugel

2000 Invited Lecturer, International Conference on Bone Morphogenetic Proteins, Lake Tahoe, California

2000 Invited Lecturer, Croucher Advanced Study Institute on Engineering of Musculoskeletal Tissues, Kowloon, Hong Kong

2000 Invited Lecturer, European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands

2000 Invited Lecturer, Translation of Biomaterials Research into Biotechnology Symposium, University of Chicago, Chicago, Illinois

2000 Invited Lecturer, Annual Meeting of Orthopaedic Research Society and American Academy of Orthopaedic Surgeons, Orlando, Florida

2000 Alessandro Codivilla Lecturer, Association for the Study and Application of the Methods of Ilizarov Annual Scientific Meeting, Orlando, Florida

2000 Invited Lecturer, Research Initiatives Conference in Vascular Disease, Bethesda, Maryland

1999 Invited Lecturer, BioValley Tissue Engineering Symposium, Freiburg, Germany

1999 Invited Lecturer, Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea

1999 Invited Lecturer, Gordon Research Conference on Tissue Engineering, Biomaterials, and Biocompatibility, Plymouth, New Hampshire

1999 Member, Biomimetics and Tissue Engineering in the Restoration of Orofacial Tissues Study Section, National Institutes of Health

1999 Invited Lecturer, Congress on In Vitro Biology, New Orleans, Louisiana

1999 Member, Dental, Oral and Craniofacial Health Technology Forum, National Institute of Dental and Craniofacial Research/Food and Drug Administration

1999 Invited Lecturer, International Workshop on Calcified Tissues, Eilat, Israel

1998 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

1998 Research Advisor of Excellence in Science Dissertation Award for Best Ph.D. Thesis, Sigma Xi

1998 Research Advisor of Graduate Student Award for Best Paper, Southern Biomedical Engineering Conference

1998 Member, Functional Biomaterials Panel, Bioengineering Consortium Symposium, National Institutes of Health

1998 Invited Lecturer, Association of Bone and Joint Surgeons Orthopaedic Tissue Engineering Workshop, Tampa, Florida

1998 Invited Lecturer, International Business Communications Industry Symposium on Advancements in Tissue Engineering, Boston, Massachusetts

1997-2000 Ad Hoc Member, Oral Biology and Medicine Study Section, National Institutes of Health

1997 Invited Lecturer, Workshop on Tissue Based Biosensors, Defense Advanced Research Projects Agency, Ashburn, Virginia

1997 Invited Lecturer, Annual Symposium of Macromolecular Science and Engineering Center, The University of Michigan, Ann Arbor, Michigan

1997 Invited Lecturer, Medical Textiles Conference, Clemson University, Clemson, South Carolina

1997 Invited Lecturer, Portland Bone Symposium, Portland, Oregon

1997 Invited Lecturer, First Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England

1997 Research Advisor of Graduate Student Award for Outstanding Research, Society For Biomaterials

1997 Research Advisor of Selected Excellence Paper, Society For Biomaterials

1997 Research Advisor of Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University

1997 Research Advisor of Ph.D. Thesis Award, Sigma Xi

1997 Research Advisor of James S. Waters Creativity Award, Rice University

1997 Invited Lecturer, International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah

1997 Research Advisor of Poster Award, Houston Society for Engineering in Medicine and Biology

1996-1998 Member, Clinical Sciences Special Emphasis Panel, Muscular, Skeletal, and Dental Initial Review Group, National Institutes of Health

1996 Research Advisor of Excellence in Bioengineering, Dr. William B. Walsh Award, Advanced Tissue Sciences

1996 Research Advisor of James S. Waters Creativity Award, Rice University

- 1996 Research Advisor of Honorable Mention, Poster Award, Houston Society for Engineering in Medicine and Biology
- 1996 Member, Workshop on Biomimetics, Tissue Engineering, and Biomaterials, National Institute of Dental Research
- 1996 Invited Lecturer, International Symposium on Endocrine Cell Transplantation and Genetic Engineering, Giessen, Germany
- 1995 Invited Lecturer, Taniguchi Conference on the Tissue Engineering with the Use of Biomedical Polymers, Kyoto, Japan
- 1995 Invited Lecturer, International Business Communications Conference on Tissue Engineering and Repair, Washington, D.C.
- 1995 Research Advisor of Distinguished Contribution, BFGoodrich Collegiate Inventors Program
- 1995 Research Advisor of Best Undergraduate Polymer Research, POLYED Award, American Chemical Society
- 1995 Founding Member, Tissue Engineering Society
- 1995 Invited Lecturer, American Society for Artificial Internal Organs Conference, Chicago, Illinois
- 1995 Ad Hoc Member, Biomedical Research Technology Review Committee, National Institutes of Health
- 1995 Invited Lecturer, American Association for the Advancement of Science Meeting, Atlanta, Georgia
- 1995 Research Advisor of Best Poster, Intermedics Award, Houston Society for Engineering in Medicine and Biology
- 1994 Invited Lecturer, Surfaces in Biomaterials, Scottsdale, Arizona
- 1994 Invited Lecturer, World Congress of Biomechanics, Amsterdam, The Netherlands
- 1994 Invited Lecturer, International ITV Conference on Biomaterials, Denkendorf, Germany
- 1993 Research Advisor of Best Undergraduate Polymer Research, POLYED Award, American Chemical Society
- 1993 Research Advisor of James S. Waters Creativity Award, Rice University
- 1993 Invited Lecturer, Monte Verità Conference, Ascona, Switzerland
- 1992 Invited Lecturer, Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel
- 1992 Invited Lecturer, Hispanic and Hispanic-Portuguese Congress on Biotechnology, Santiago de Compostela, Spain

Editorial Boards

Tissue Engineering Part A (1995-), **Editor-in-Chief** (1995-)
 Tissue Engineering Part B: Reviews (2008-), **Editor-in-Chief** (2008-)
 Tissue Engineering Part C: Methods (2008-), **Editor-in-Chief** (2008-)
 ACS Nano Medicine (2025-)
 Advanced Drug Delivery Reviews (2004-)
 Biomaterials (1994-2007), Special Issues Editor (1998-2007), Guest Editor of Two Special Issues on Tissue Engineering (1996)
 Cell Transplantation (1994-)
 Electronic Journal of Biotechnology (1997-)
 European Journal of Pharmaceutics and Biopharmaceutics (2014-)
 Journal of Biomaterials Science, Polymer Edition (1996-), Guest Editor of Three Special Issues on Cells at Interfaces (1998)
 Journal of Biomedical Materials Research Part A (1996-)
 Journal of Biomedical Materials Research Part B: Applied Biomaterials (2003-)
 Journal of Controlled Release (2000-2025)
 Journal of Drug Targeting (1999-2003)
 Journal of Tissue Engineering and Regenerative Medicine (2007-)
 Regenerative Biomaterials (2018-)
 Regenerative Engineering and Translational Medicine (2015-)
 Annual Review of Biomedical Engineering, Volume 5 (2003)
 Tissue Engineering Intelligence Unit, R.G. Landes Company and Academic Press (1995-)

Tissue Engineering Series, Birkhäuser/Springer (1996-)

Academic Advisory Boards

Regenerative Medicine Foundation (2010-)
 University of Maryland, Fischell Department of Bioengineering (2010-)
 Carnegie Mellon University, Institute for Complex Engineered Systems (2008-)
 Radboud University Nijmegen, Nijmegen Centre for Molecular Life Sciences (2005)
 The Cleveland Clinic Foundation, Clinical Tissue Engineering Center (2004-)
 National Tissue Engineering Center (2003-)
 University of Michigan, Tissue Engineering and Regeneration Training Program (2002-)
 University of Utah, Department of Bioengineering (1999)
 Purdue University, Tissue Engineering (1998-2002)
 Baylor College of Medicine/Rice University, Medical Scientist Training Program
 Faculty Operating Committee (1995-)
 Executive Committee (2006-)
 University of Texas Health Science Center at Houston, Dental Branch (1993-)

Scientific Advisory Committees

Chinese Biomaterials Congress, Dalian, China (2019)
 Fifth World Congress of Tissue Engineering and Regenerative Medicine International Society, Kyoto, Japan (2018)
 World Biomaterials Congress, Montreal, Canada (2016)
 Fourth World Congress of Tissue Engineering and Regenerative Medicine International Society, Boston, Massachusetts (2015)
 Tissue Engineering and Regenerative Medicine International Society-Americas Annual Conference and Exposition, Washington, D.C. (2014)
 Tissue Engineering and Regenerative Medicine International Society-Americas Annual Conference and Exposition, Atlanta, Georgia (2013)
 Third World Congress of Tissue Engineering and Regenerative Medicine International Society, Vienna, Austria (2012)
 World Biomaterials Congress, Chengdu, China (2012)
 Tissue Engineering and Regenerative Medicine International Society-Europe Conference, Galway, Ireland (2010)
 International Conference on Medical Applications of Novel Biomaterials and Nano-biotechnology, Montecatini Terme, Tuscany, Italy (2010)
 Fourth World Congress on Regenerative Medicine, Bangkok, Thailand (2009)
 International Conference on Materials for Advanced Technologies, Singapore (2009)
 Annual Conference of Tissue Engineering and Regenerative Medicine International Society – Asia Pacific Region, Taipei, Taiwan (2008)
 International Conference on Smart Materials, Structures and Systems, Acireale, Sicily, Italy (2008)
 International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore (2008)
 European Symposium on Controlled Drug Delivery, Noordwijk Aan Zee, The Netherlands (2006-)
 First Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal (2006)
 Annual Meeting of Society For Biomaterials, Pittsburgh, Pennsylvania (2006)
 Aegean Conferences (2005-)
 Annual Meeting of Tissue Engineering Society International, Shanghai, China (2005)
 Summer School on Emerging Technologies in Biomedicine, University of Patras, Greece (2005-)
 Marcus Evans Conferences (2003-)
 International Conference on Materials for Advanced Technologies, Singapore (2003)
 Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania (2003)
 Cell-Based Therapies and Tissue Engineering Short Course, Case Western Reserve University, Cleveland, Ohio (2002-)

NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal (2001)
 International Symposium on Frontiers in Biomedical Polymers Including Polymer Therapeutics, Shiga, Japan (1999)

Professional Societies and Positions Held

American Academy of Arts and Sciences (AmAcad)
 Academia Europaea (AE)
 Academy of Athens (AoA)
 Chinese Academy of Engineering (CAE)
 International Academy of Medical and Biological Engineering (IAMBE)
 National Academy of Engineering (NAE)
 National Academy of Inventors (NAI)
 National Academy of Medicine (NAM)
 Royal Academy of Pharmacy of Galicia (RAFG)
 Texas Academy of Medicine, Engineering, Science and Technology (TAMEST)
 Annual Conference Program Committee (2016)
 O'Donnell Awards Committee (2016-2018)
 Chair of O'Donnell Awards Engineering Subcommittee (2017-2018)
 Board of Directors (2017-2019)
 Hill Prizes Committee (2023-2024)
 American Association for the Advancement of Science (AAAS)
 American Chemical Society (ACS)
 American Institute of Chemical Engineers (AIChE)
 Vice-Chair of Area 8b Biomaterials (1992-1994)
 Chair of Area 8b Biomaterials (1994-1996)
 Vice Chair of Area 15d/e Engineering Fundamentals in Life Science (1995-1997)
 Chair of Area 15d/e Engineering Fundamentals in Life Science (1997-1999)
 James E. Bailey Awards Committee (2018-2024)
 American Institute for Medical and Biological Engineering (AIMBE)
 American Society for Engineering Education (ASEE)
 Association for Research in Vision and Ophthalmology (ARVO)
 Biomedical Engineering Society (BMES)
 Chair of 2002 EMBS-BMES Joint Conference
 Cell Transplant Society
 Controlled Release Society (CRS)
 Global Network Team (1994-1996)
 Chair of Workshop Committee (1996-1998)
 Chair of 2006 CRS Annual Meeting and Exposition
 Founders Awards Committee (2021-2022)
 Chair of Founders Awards Committee (2022)
 Greek Chemical Engineers Association
 Greek Polymer Society
 Houston Society for Engineering in Medicine and Biology (HSEMB)
 Steering Committee (1995-1997)
 International Association for Dental Research (IADR)
 Materials Research Society (MRS)
 External Affairs Committee (1995-2003)
 Chair of 2000 Fall MRS Meeting
 Orthopaedic Research Society
 Chair of Biomaterials Topic Committee (2005-2006)
 Sigma Xi
 Society For Biomaterials (SFB)
 Chair of Hybrid Artificial Organs Special Interest Group (1993-1995)
 Delegate of International Union of Societies for Biomaterials Science and Engineering (2004-2012)

Member-at-Large (2004-2005)
 Secretary/Treasurer-Elect (2007-2009)
 Secretary/Treasurer (2009-2011)
 President-Elect (2012-2013)
President (2013-2014)
 Chair of Long Range Planning Committee (2012-2013)
 Chair of Awards, Ceremonies and Nominations Committee (2016-2017)

Technical Chamber of Greece

The New York Academy of Sciences

Tissue Engineering and Regenerative Medicine International Society (TERMIS)

President-Elect of TERMIS-Americas (2006-2008)

President of TERMIS-Americas (2009-2011)

Awards Committee (2010-2014)

Chair of Awards Committee (2012-2014)

Chair of Nominating Committee (2012-2014)

Tissue Engineering Society International (TESi)

Founding Member

Clerk/Secretary (1996-1998)

Vice-President (1998-2000)

Member Governor (2003-2005)

Registered Professional Engineer

Technical Chamber of Greece (1983-)

Books

1. A.G. Mikos, R. Murphy, H. Bernstein, and N.A. Peppas, "Biomaterials for Drug and Cell Delivery," MRS Symposium Proceedings, Vol. 331, Materials Research Society, Pittsburgh, 1994.
2. A.G. Mikos, K.W. Leong, M.J. Yaszemski, J.A. Tamada, and M.L. Radomsky, "Polymers in Medicine and Pharmacy," MRS Symposium Proceedings, Vol. 394, Materials Research Society, Pittsburgh, 1995.
3. N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, "Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering," American Institute of Chemical Engineers, New York, 1997.
4. R.C. Thomson, D.J. Mooney, K.E. Healy, Y. Ikada, and A.G. Mikos, "Biomaterials Regulating Cell Function and Tissue Development," MRS Symposium Proceedings, Vol. 530, Materials Research Society, Pittsburgh, 1998.
5. C.W. Patrick, Jr., A.G. Mikos, and L.V. McIntire, "Frontiers in Tissue Engineering," Elsevier Science, New York, 1998.
6. D.L. Wise, A. Klibanov, R. Langer, A.G. Mikos, L. Brannon-Peppas, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, "Handbook of Pharmaceutical Controlled Release Technology," Marcel Dekker, New York, 2000.
7. A.G. Mikos, "NWO | Huygens Lecture 2003: Tissue Engineering," Netherlands Organization for Scientific Research, The Hague, 2003.
8. F. Bronner, M.C. Farach-Carson, and A.G. Mikos, "Engineering of Functional Skeletal Tissues," Topics in Bone Biology, Vol. 3, Springer-Verlag, London, 2007.
9. J.P. Fisher, A.G. Mikos, and J.D. Bronzino, "Tissue Engineering," CRC Press, Boca Raton, 2007.
10. J.J. Mao, G. Vunjak-Novakovic, A.G. Mikos, and A. Atala, "Translational Approaches in Tissue Engineering and Regenerative Medicine," Artech House, Norwood, 2008.
11. J.S. Temenoff and A.G. Mikos, "Biomaterials: The Intersection of Biology and Materials Science," Pearson Prentice Hall, Upper Saddle River, 2008.
12. V.P. Shastri, A. Lendlein, L.S. Liu, A.G. Mikos, and S. Mitragotri, "Advances in Material Design for Regenerative Medicine, Drug Delivery and Targeting/Imaging," MRS Symposium Proceedings, Vol. 1140, Materials Research Society, Warrendale, 2009.

13. P.C. Johnson and A.G. Mikos, "Angiogenesis," *Advances in Tissue Engineering*, Vol. 1, Mary Ann Liebert, New Rochelle, 2010.
14. P.C. Johnson and A.G. Mikos, "Stem Cells," *Advances in Tissue Engineering*, Vol. 2, Mary Ann Liebert, New Rochelle, 2010.
15. J.P. Fisher, A.G. Mikos, J.D. Bronzino, and D.R. Peterson, "Tissue Engineering Principles and Practices," CRC Press, Boca Raton, 2013.
16. A. Atala, R. Lanza, A.G. Mikos, and R. Nerem, "Principles of Regenerative Medicine," 3rd Ed., Elsevier Academic Press, San Diego, 2019.
17. J.S. Temenoff and A.G. Mikos, "Biomaterials: The Intersection of Biology and Materials Science," 2nd Ed., Pearson, Hoboken, 2023.

Journal Special Issues and Book Sections

1. A.G. Mikos, "Polymer Scaffolding and Hard Tissue Engineering," *Biomaterials*, Special Issue I on Tissue Engineering, Vol. 17, No. 2, 1996.
2. A.G. Mikos, "Tissue Technologies and Soft Tissue Engineering," *Biomaterials*, Special Issue II on Tissue Engineering, Vol. 17, No. 3, 1996.
3. T.A. Horbett, A.G. Mikos, and D.J. Mooney, *J. Biomater. Sci., Polym. Ed.*, Special Issue I on Cells at Interfaces, Vol. 9, No. 8, 1998.
4. T.A. Horbett, A.G. Mikos, and D.J. Mooney, *J. Biomater. Sci., Polym. Ed.*, Special Issue II on Cells at Interfaces, Vol. 9, No. 11, 1998.
5. T.A. Horbett, A.G. Mikos, and D.J. Mooney, *J. Biomater. Sci., Polym. Ed.*, Special Issue III on Cells at Interfaces, Vol. 9, No. 12, 1998.
6. T.A. Horbett, A.G. Mikos, and D.J. Mooney, *J. Biomater. Sci., Polym. Ed.*, Special Issue IV on Cells at Interfaces, Vol. 10, No. 2, 1999.
7. A.G. Mikos, "Section Five: Active Implants" (Four Chapters), in *Handbook of Biomaterials Evaluation*, 2nd ed., A.F. von Recum, Ed., Taylor & Francis, Philadelphia, 1999, pp. 383-460.
8. Y.H. Bae and A.G. Mikos, *Adv. Drug Deliv. Rev.*, Special Issue on Cells as Drug Delivery Platforms, Vol. 42, Nos. 1-2, 2000.
9. D.J. Mooney and A.G. Mikos, *J. Drug Target.*, Special Issue on Tissue Engineering, Vol. 9, No. 6, 2001.
10. J.P. Fisher and A.G. Mikos, "Tissue Engineering" (Thirty-Three Chapters), in *Tissue Engineering and Artificial Organs*, The Biomedical Engineering Handbook, Vol. 3, 3rd Ed., J.D. Bronzino, Ed., CRC Press, Boca Raton, 2006, pp. 30-1-62-19.
11. W.T. Godbey and A.G. Mikos, *Adv. Drug Deliv. Rev.*, Special Issue on Gene Delivery for Tissue Engineering, Vol. 58, No. 4, 2006.
12. A. Domb and A.G. Mikos, *Adv. Drug Deliv. Rev.*, Special Issue on Matrices and Scaffolds for Drug Delivery in Tissue Engineering, Vol. 59, Nos. 4-5, 2007.
13. E. Cosgriff-Hernandez and A.G. Mikos, *Pharm. Res.*, Special Issue on New Biomaterials as Scaffolds for Tissue Engineering, Vol. 25, No. 10, 2008.
14. S. Zhang and A.G. Mikos, *Adv. Healthcare Mater.*, Special Issue on Biomaterials for Regenerative Medicine, Vol. 9, No. 23, 2020.
15. J.L. Guo, L.E. Kavraki, and A.G. Mikos, *Tissue Eng. Part A*, Special Issue on Machine Learning in Tissue Engineering, Vol. 29, Nos. 1-2, 2023.

Publications

1. A.G. Mikos, C.G. Takoudis, and N.A. Peppas, "Kinetic Modeling of Copolymerization/Crosslinking Reactions," *Macromolecules*, 19, 2174-2182 (1986).
2. A.G. Mikos, C.G. Takoudis, and N.A. Peppas, "Reaction Engineering Aspects of Suspension Polymerization," *J. Appl. Polym. Sci.*, 31, 2647-2659 (1986).
3. A.G. Mikos and N.A. Peppas, "Systems for Controlled Release of Drugs. V. Bioadhesive Systems," *S.T.P. Pharma*, 2, 705-716 (1986).
4. N.A. Peppas, M.L. Brannon, R.S. Harland, J. Klier, S.R. Lustig, and A.G. Mikos, "Influence of the Polymer Structure on Controlled Solute Release," *Bull. Techn. Gattefossé*, 79, 7-17 (1986).

5. A.G. Mikos, C.G. Takoudis, and N.A. Peppas, "Evidence of Unequal Vinyl Group Reactivity in Copolymerization/Crosslinking Reactions of Mono- and Divinyl Comonomers," *Polymer*, **28**, 998-1004 (1987).
6. A.G. Mikos and N.A. Peppas, "A model for Prediction of the Structural Characteristics of EGDMA-Crosslinked PHEMA Microparticles Produced by Suspension Copolymerization/ Crosslinking," *J. Controlled Release*, **5**, 53-62 (1987).
7. A.G. Mikos and N.A. Peppas, "Prediction of Feed Comonomer and Solvent Composition for Monomer-Free Polymer Production," *Biomaterials*, **8**, 404-406 (1987).
8. A.G. Mikos and N.A. Peppas, "Flory Interaction Parameter χ for Hydrophilic Copolymers with Water," *Biomaterials*, **9**, 419-423 (1988).
9. A.G. Mikos and N.A. Peppas, "Healing and Fracture at the Interface between two Gels," *Europhys. Lett.*, **6**, 403-406 (1988).
10. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture," *J. Chem. Phys.*, **88**, 1337-1342 (1988).
11. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture. II. Autohesion of Linear Polymers," *Polymer*, **30**, 84-91 (1989).
12. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture. III. Critical Fracture Strength of Macromolecular Materials," *J. Mater. Sci. Lett.*, **8**, 833-834 (1989).
13. A.G. Mikos and N.A. Peppas, "Brittle Fracture of Low Molecular Weight Polymers," *J. Mater. Sci.*, **24**, 1612-1616 (1989).
14. A.G. Mikos and N.A. Peppas, "Measurement of the Surface Tension of Mucin Solutions," *Int. J. Pharm.*, **53**, 1-5 (1989).
15. N.A. Peppas and A.G. Mikos, "Experimental Methods for Determination of Bioadhesive Bond Strength of Polymers with Mucus," *S.T.P. Pharma*, **5**, 187-191 (1989).
16. A.B. Scranton, A.G. Mikos, L.C. Scranton, and N.A. Peppas, "The Physical Mechanism for the Production of Hydrophilic Polymer Microparticles from Aqueous Suspensions," *J. Appl. Polym. Sci.*, **40**, 997-1004 (1990).
17. A.G. Mikos and N.A. Peppas, "Bioadhesive Analysis of Controlled-Release Systems. IV. An Experimental Method for Testing the Adhesion of Microparticles with Mucus," *J. Controlled Release*, **12**, 31-37 (1990).
18. A.G. Mikos and N.A. Peppas, "Brittle Fracture of Entangled Polymers," *J. Polym. Sci., Polym. Phys. Ed.*, **29**, 837-841 (1991).
19. A.G. Mikos and C. Kiparissides, "Skin Formation in Heterogeneous Polymerization Reactions," *J. Membrane Sci.*, **59**, 205-217 (1991).
20. A.G. Mikos, E. Mathiowitz, R. Langer, and N.A. Peppas, "Interaction of Polymer Microspheres with Mucin Gels as a Means of Characterizing Polymer Retention on Mucus," *J. Colloid Interface Sci.*, **143**, 366-373 (1991).
21. L.E. Freed, J.C. Marquis, A. Nohria, J. Emmanuel, A.G. Mikos, and R. Langer, "Neocartilage Formation *In Vitro* and *In Vivo* Using Cells Cultured on Synthetic Biodegradable Polymers," *J. Biomed. Mater. Res.*, **27**, 11-23 (1993).
22. A.G. Mikos, Y. Bao, L.G. Cima, D.E. Ingber, J.P. Vacanti, and R. Langer, "Preparation of Poly(Glycolic Acid) Bonded Fiber Structures for Cell Attachment and Transplantation," *J. Biomed. Mater. Res.*, **27**, 183-189 (1993).
23. H.L. Wald, G. Sarakinos, M.D. Lyman, A.G. Mikos, J.P. Vacanti, and R. Langer, "Cell Seeding in Porous Transplantation Devices," *Biomaterials*, **14**, 270-278 (1993).
24. A.G. Mikos, G. Sarakinos, S.M. Leite, J.P. Vacanti, and R. Langer, "Laminated Three-Dimensional Biodegradable Foams for Use in Tissue Engineering," *Biomaterials*, **14**, 323-330 (1993).
25. A.G. Mikos and N.A. Peppas, "Bioadhesive Phenomena in Controlled Release Systems," *Pharmakeftiki*, **6**, 1-10 (1993).
26. A.G. Mikos, G. Sarakinos, M.D. Lyman, D.E. Ingber, J.P. Vacanti, and R. Langer, "Prevascularization of Porous Biodegradable Polymers," *Biotechnol. Bioeng.*, **42**, 716-723 (1993).
27. A.G. Mikos, M.D. Lyman, L.E. Freed, and R. Langer, "Wetting of Poly(L-Lactic Acid) and Poly(DL-Lactic-co-Glycolic Acid) Foams for Tissue Culture," *Biomaterials*, **15**, 55-58 (1994).
28. A.G. Mikos, A.J. Thorsen, L.A. Czerwonka, Y. Bao, R. Langer, D.N. Winslow, and J.P. Vacanti, "Preparation and Characterization of Poly(L-Lactic Acid) Foams," *Polymer*, **35**, 1068-1077 (1994).

29. A.G. Mikos, M.G. Papadaki, S. Kouvroukoglou, S.L. Ishaug, and R.C. Thomson, "Islet Transplantation to Create a Bioartificial Pancreas," *Biotechnol. Bioeng.*, **43**, 673-677 (1994).
30. M.C. Wake, C.W. Patrick, Jr., and A.G. Mikos, "Pore Morphology Effects on the Fibrovascular Tissue Growth in Porous Polymer Substrates," *Cell Transplantation*, **3**, 339-341 (1994).
31. S.L. Ishaug, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Function on Synthetic Biodegradable Polymers," *J. Biomed. Mater. Res.*, **28**, 1445-1453 (1994).
32. M.J. Yaszemski, R.G. Payne, W.C. Hayes, R. Langer, T.B. Aufdemorte, and A.G. Mikos, "The Ingrowth of New Bone Tissue and Initial Mechanical Properties of a Degrading Polymeric Composite Scaffold," *Tissue Eng.*, **1**, 41-52 (1995).
33. H.A. von Recum, R.L. Cleek, S.G. Eskin, and A.G. Mikos, "Degradation of Polydispersed Poly(L-Lactic Acid) to Modulate Lactic Acid Release," *Biomaterials*, **16**, 441-447 (1995).
34. M.C. Wake, A.G. Mikos, G. Sarakinos, J.P. Vacanti, and R. Langer, "Dynamics of Fibrovascular Tissue Growth in Hydrogel Foams," *Cell Transplantation*, **4**, 275-279 (1995).
35. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Fabrication of Biodegradable Polymer Scaffolds to Engineer Trabecular Bone," *J. Biomater. Sci., Polym. Ed.*, **7**, 23-38 (1995).
36. R.C. Thomson, M.C. Wake, M.J. Yaszemski, and A.G. Mikos, "Biodegradable Polymer Scaffolds to Regenerate Organs," *Adv. Polym. Sci.*, **122**, 245-274 (1995).
37. A.D. Ouellette, K.K. Wu, and A.G. Mikos, "Cardiovascular Gene Transfer," *Tissue Eng.*, **1**, 311-322 (1995).
38. G.M. Crane, S.L. Ishaug, and A.G. Mikos, "Bone Tissue Engineering," *Nature Medicine*, **1**, 1322-1324 (1995).
39. M.J. Yaszemski, R.G. Payne, W.C. Hayes, R. Langer, and A.G. Mikos, "The Evolution of Bone Transplantation: Molecular, Cellular, and Tissue Strategies to Engineer Human Bone," *Biomaterials*, **17**, 175-185 (1996).
40. R.C. Thomson, G.G. Giordano, J.H. Collier, S.L. Ishaug, A.G. Mikos, D. Lahiri-Munir, and C.A. Garcia, "Manufacture and Characterization of Poly(α -Hydroxy Ester) Thin Films as Temporary Substrates for Retinal Pigment Epithelium Cells," *Biomaterials*, **17**, 321-327 (1996).
41. M.J. Miller, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, M.C. Wake, and A.G. Mikos, "Guided Bone Growth in Sheep: A Model for Tissue-Engineered Bone Flaps," *Tissue Eng.*, **2**, 51-59 (1996).
42. A.C. Jen, M.C. Wake, and A.G. Mikos, "Hydrogels for Cell Immobilization," *Biotechnol. Bioeng.*, **50**, 357-364 (1996).
43. S.L. Ishaug, R.G. Payne, M.J. Yaszemski, T.B. Aufdemorte, R. Bizios, and A.G. Mikos, "Osteoblast Migration on Poly(α -Hydroxy Esters)," *Biotechnol. Bioeng.*, **50**, 443-451 (1996).
44. M.C. Wake, P.K. Gupta, and A.G. Mikos, "Fabrication of Pliable Biodegradable Polymer Foams to Engineer Soft Tissues," *Cell Transplantation*, **5**, 465-473 (1996).
45. M.J. Yaszemski, R.G. Payne, W.C. Hayes, R. Langer, and A.G. Mikos, "The *In Vitro* Degradation of a Poly(Propylene Fumarate)-Based Composite Material," *Biomaterials*, **17**, 2127-2130 (1996).
46. L. Lu and A.G. Mikos, "The Importance of New Processing Techniques in Tissue Engineering," *MRS Bulletin*, **21**, 28-32 (1996).
47. C.R. Ruder, P. Dixon, A.G. Mikos, and M.J. Yaszemski, "The Growth and Phenotypic Expression of Human Osteoblasts," *Cytotechnology*, **22**, 263-267 (1996).
48. G.G. Giordano, R.C. Thomson, S.L. Ishaug, A.G. Mikos, S. Cumber, C.A. Garcia, and D. Lahiri-Munir, "Retinal Pigment Epithelium Cells Cultured on Synthetic Biodegradable Polymers," *J. Biomed. Mater. Res.*, **34**, 87-93 (1997).
49. K.B. Hellman, G.L. Picciolo, A.G. Mikos, and C.A. Vacanti, "Workshop on Tissue Engineering: Foreword," *Tissue Eng.*, **3**, 65-66 (1997).
50. L. Christenson, A.G. Mikos, D.F. Gibbons, and G.L. Picciolo, "Biomaterials for Tissue Engineering: Summary," *Tissue Eng.*, **3**, 71-76 (1997).
51. R.L. Cleek, A.A. Rege, L.A. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Growth *In Vitro* by an Antisense Oligodeoxynucleotide Released from Poly(DL-Lactic-co-Glycolic Acid) Microparticles," *J. Biomed. Mater. Res.*, **35**, 525-530 (1997).
52. S.J. Peter, J.A. Nolley, M.S. Widmer, J.E. Merwin, M.J. Yaszemski, A.W. Yasko, P.S. Engel, and A.G. Mikos, "In Vitro Degradation of a Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Composite Orthopaedic Scaffold," *Tissue Eng.*, **3**, 207-215 (1997).

53. S.L. Ishaug-Riley, G.M. Crane, A. Gurlek, M.J. Miller, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Ectopic Bone Formation by Marrow Stromal Osteoblast Transplantation Using Poly(DL-Lactic-co-Glycolic Acid) Foams Implanted into the Rat Mesentery," *J. Biomed. Mater. Res.*, **36**, 1-8 (1997).
54. S.L. Ishaug, G.M. Crane, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Bone Formation by Three-Dimensional Stromal Osteoblast Culture in Biodegradable Polymer Scaffolds," *J. Biomed. Mater. Res.*, **36**, 17-28 (1997).
55. L.J. Suggs, R.G. Payne, M.J. Yaszemski, L.B. Alemany, and A.G. Mikos, "Synthesis and Characterization of a Block Copolymer Consisting of Poly(Propylene Fumarate) and Poly(Ethylene Glycol)," *Macromolecules*, **30**, 4318-4323 (1997).
56. R.L. Cleek, K.C. Ting, S.G. Eskin, and A.G. Mikos, "Microparticles of Poly(DL-Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) Blends for Controlled Drug Delivery," *J. Controlled Release*, **48**, 259-268 (1997).
57. S.J. Peter, M.J. Yaszemski, L.J. Suggs, R.G. Payne, R. Langer, W.C. Hayes, M.R. Unroe, L.B. Alemany, P.S. Engel, and A.G. Mikos, "Characterization of Partially Saturated Poly(Propylene Fumarate) for Orthopaedic Application," *J. Biomater. Sci., Polym. Ed.*, **8**, 893-904 (1997).
58. M.C. Wake, P.D. Gerecht, L. Lu, and A.G. Mikos, "Effects of Biodegradable Polymer Particles on Rat Marrow-Derived Stromal Osteoblasts *In Vitro*," *Biomaterials*, **19**, 1255-1268 (1998).
59. L.J. Suggs, E.Y. Kao, L.L. Palombo, R.S. Krishnan, M.S. Widmer, and A.G. Mikos, "Preparation and Characterization of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomater. Sci., Polym. Ed.*, **9**, 653-666 (1998).
60. S.J. Peter, S.T. Miller, G. Zhu, A.W. Yasko, and A.G. Mikos, "In Vivo Degradation of a Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Injectable Composite Scaffold," *J. Biomed. Mater. Res.*, **41**, 1-7 (1998).
61. S.J. Peter, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Rat Marrow Stromal Cells Cultured in the Presence of Dexamethasone, β -Glycerolphosphate, and L-Ascorbic Acid," *J. Cell. Biochem.*, **71**, 55-62 (1998).
62. S.L. Ishaug-Riley, G.M. Crane-Kruger, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Culture of Rat Calvarial Osteoblasts in Porous Biodegradable Polymers," *Biomaterials*, **19**, 1405-1412 (1998).
63. J.E. Babensee, J.M. Anderson, L.V. McIntire, and A.G. Mikos, "Host Response to Tissue Engineered Devices," *Adv. Drug Deliv. Rev.*, **33**, 111-139 (1998).
64. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Hydroxyapatite Fiber Reinforced Poly(α -Hydroxy Ester) Foams for Bone Regeneration," *Biomaterials*, **19**, 1935-1943 (1998).
65. M.S. Widmer, P.K. Gupta, L. Lu, R.K. Meszlenyi, G.R.D. Evans, K. Brandt, T. Savel, A. Gurlek, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture of Porous Biodegradable Polymer Conduits by an Extrusion Process for Guided Tissue Regeneration," *Biomaterials*, **19**, 1945-1955 (1998).
66. L. Lu, C.A. Garcia, and A.G. Mikos, "Retinal Pigment Epithelium Cell Culture on Thin Biodegradable Poly(DL-Lactic-co-Glycolic Acid) Films," *J. Biomater. Sci., Polym. Ed.*, **11**, 1187-1205 (1998).
67. L.J. Suggs, R.S. Krishnan, C.A. Garcia, S.J. Peter, J.M. Anderson, and A.G. Mikos, "In Vitro and In Vivo Degradation of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomed. Mater. Res.*, **42**, 312-320 (1998).
68. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Polymer Concepts in Tissue Engineering," *J. Biomed. Mater. Res. (Appl. Biomater.)*, **43**, 422-427 (1998).
69. S.J. Peter, P. Kim, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "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," *J. Biomed. Mater. Res.*, **44**, 314-321 (1999).
70. L.J. Suggs, J.L. West, and A.G. Mikos, "Platelet Adhesion on a Bioresorbable Poly(Propylene Fumarate-co-Ethylene Glycol) Copolymer," *Biomaterials*, **20**, 683-690 (1999).
71. S.J. Peter, L.J. Suggs, M.J. Yaszemski, P.S. Engel, and A.G. Mikos, "Synthesis of Poly(Propylene Fumarate) by Acylation of Propylene Glycol in the Presence of a Proton Scavenger," *J. Biomater. Sci., Polym. Ed.*, **10**, 363-373 (1999).
72. L. Lu and A.G. Mikos, "Biodegradable Polymers for Cell Transplantation," *Science Medicine*, **6** (1), 6-7 (1999).
73. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," *J. Biomed. Mater. Res.*, **45**, 268-275 (1999).

74. L.J. Suggs, M.S. Shive, C.A. Garcia, J.M. Anderson, and A.G. Mikos, "In Vitro Cytotoxicity and In Vivo Biocompatibility of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomed. Mater. Res.*, **46**, 22-32 (1999).
75. L.J. Suggs and A.G. Mikos, "Development of Poly(Propylene Fumarate-co-Ethylene Glycol) as an Injectable Carrier for Endothelial Cells," *Cell Transplantation*, **8**, 345-350 (1999).
76. G.R.D. Evans, K. Brandt, M.S. Widmer, L. Lu, R.K. Meszlenyi, P.K. Gupta, A.G. Mikos, J. Hodges, J. Williams, A. Gürlek, A. Nabawi, R. Lohman, and C.W. Patrick, Jr., "In Vivo Evaluation of Poly(L-Lactic Acid) Porous Conduits for Peripheral Nerve Regeneration," *Biomaterials*, **20**, 1109-1115 (1999).
77. L. Lu, C.A. Garcia, and A.G. Mikos, "In Vitro Degradation of Thin Poly(DL-Lactic-co-Glycolic Acid) Films," *J. Biomed. Mater. Res.*, **46**, 236-244 (1999).
78. A. Göpferich, S.J. Peter, A. Lucke, L. Lu, and A.G. Mikos, "Modulation of Marrow Stromal Cell Function Using Poly(D,L-Lactic Acid)-block-Poly(Ethylene Glycol)-Monomethyl Ether Surfaces," *J. Biomed. Mater. Res.*, **46**, 390-398 (1999).
79. R.C. Thomson, A.G. Mikos, E. Beahm, J.C. Lemon, W.C. Satterfield, T.B. Aufdemorte, and M.J. Miller, "Guided Tissue Fabrication from Periosteum Using Preformed Biodegradable Polymer Scaffolds," *Biomaterials*, **20**, 2007-2018 (1999).
80. E. Behraves, P.S. Engel, A.W. Yasko, and A.G. Mikos, "Synthetic Biodegradable Polymers for Orthopaedic Applications," *Clin. Orthop. Rel. Res.*, **367S**, S118-S129 (1999).
81. D. Dean, N.S. Topham, C. Rimnac, A.G. Mikos, D.P. Goldberg, K. Jepsen, R. Redtfeldt, Q. Liu, D. Pennington, and R. Ratcheson, "Osseointegration of Preformed PMMA Craniofacial Prostheses Coated with Bone Marrow Impregnated Poly(DL-Lactic-co-Glycolic Acid) (PLGA) Foam," *Plast. Reconstr. Surg.*, **104**, 705-712 (1999).
82. A.S. Goldstein, G. Zhu, G.E. Morris, R.K. Meszlenyi, and A.G. Mikos, "Effect of Osteoblastic Culture Conditions on the Structure of Poly(DL-Lactic-co-Glycolic Acid) Foam Scaffolds," *Tissue Eng.*, **5**, 421-433 (1999).
83. W.T. Godbey, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," *Gene Therapy*, **6**, 1380-1388 (1999).
84. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine) and Its Role in Gene Delivery," *J. Controlled Release*, **60**, 149-160 (1999).
85. D.J. Mooney and A.G. Mikos, "Growing New Organs," *Scientific American*, **280** (4), 60-65 (1999).
86. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Tracking the Intracellular Path of Poly(Ethylenimine)/DNA Complexes for Gene Delivery," *Proceed. Natl. Acad. Sci. USA*, **96**, 5177-5181 (1999).
87. L. Lu, L. Kam, M. Hasenbein, K. Nyalakonda, R. Bizios, A. Göpferich, J.F. Young, and A.G. Mikos, "Retinal Pigment Epithelial Cell Function on Substrates with Chemically Micropatterned Surfaces," *Biomaterials*, **20**, 2351-2361 (1999).
88. D.J. Mooney and A.G. Mikos, "Growing New Organs," *Scientific American Presents*, **10** (3), 10-15 (1999).
89. J.S. Temenoff and A.G. Mikos, "Tissue Engineering for Regeneration of Articular Cartilage," *Biomaterials*, **21**, 431-440 (2000).
90. S.J. Peter, L. Lu, D.J. Kim, and A.G. Mikos, "Marrow Stromal Osteoblast Function on a Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Biodegradable Orthopaedic Composite," *Biomaterials*, **21**, 1207-1213 (2000).
91. L. Lu, G.N. Stamatias, and A.G. Mikos, "Controlled Release of Transforming Growth Factor- β 1 from Biodegradable Polymer Microparticles," *J. Biomed. Mater. Res.*, **50**, 440-451 (2000).
92. S.J. Peter, L. Lu, D.J. Kim, G.N. Stamatias, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Effects of Transforming Growth Factor- β 1 Released from Biodegradable Polymer Microparticles on Marrow Stromal Osteoblasts Cultured on Poly(Propylene Fumarate) Substrates," *J. Biomed. Mater. Res.*, **50**, 452-462 (2000).
93. L. Lu, S.J. Peter, M.D. Lyman, H.-L. Lai, S.M. Leite, J.A. Tamada, J.P. Vacanti, R. Langer, and A.G. Mikos, "In Vitro Degradation of Porous Poly(L-Lactic Acid) Foams," *Biomaterials*, **21**, 1595-1605 (2000).
94. J.S. Temenoff and A.G. Mikos, "Formation of Highly Porous Biodegradable Scaffolds for Tissue Engineering," *Electronic J. Biotechnol.*, **3** (2) (2000); Available on the Web: <http://www.ejb.org/content/vol3/issue2/full/5/index.html>.
95. J.E. Babensee, L.V. McIntire, and A.G. Mikos, "Growth Factor Delivery for Tissue Engineering," *Pharm. Res.*, **17**, 497-504 (2000).

96. S. Jo, P.S. Engel, and A.G. Mikos, "Synthesis of Poly(Ethylene Glycol)-Tethered Poly(Propylene Fumarate) and Its Modification with GRGD Peptide," *Polymer*, **41**, 7595-7604 (2000).
97. W.T. Godbey, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Gene Delivery," *J. Biomed. Mater. Res.*, **51**, 321-328 (2000).
98. L. Lu, S.J. Peter, M.D. Lyman, H.-L. Lai, S.M. Leite, J.A. Tamada, S. Uyama, J.P. Vacanti, R. Langer, and A.G. Mikos, "In Vitro and In Vivo Degradation of Porous Poly(DL-Lactic-co-Glycolic Acid) Foams," *Biomaterials*, **21**, 1837-1845 (2000).
99. Q. Liu, E.L. Hedberg, Z. Liu, R. Bahulekar, R.K. Meszlenyi, and A.G. Mikos, "Preparation of Macroporous Poly(2-Hydroxyethyl Methacrylate) Hydrogels by Enhanced Phase Separation," *Biomaterials*, **21**, 2163-2169 (2000).
100. S. He, M.J. Yaszemski, A.W. Yasko, P.S. Engel, and A.G. Mikos, "Injectable Biodegradable Polymer Composites Based on Poly(Propylene Fumarate) Crosslinked with Poly(Ethylene Glycol)-Dimethacrylate," *Biomaterials*, **21**, 2389-2394 (2000).
101. J.S. Temenoff and A.G. Mikos, "Injectable Biodegradable Materials for Orthopaedic Tissue Engineering," *Biomaterials*, **21**, 2405-2412 (2000).
102. B.D. Porter, J.B. Oldham, S.-L. He, M.E. Zobitz, R.G. Payne, K.N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of a Biodegradable Bone Regeneration Scaffold," *J. Biomech. Eng.*, **122**, 286-288 (2000).
103. J.B. Oldham, L. Lu, X. Zhu, B.D. Porter, T.E. Hefferan, D.R. Larson, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Biological Activity of rhBMP-2 Released from PLGA Microspheres," *J. Biomech. Eng.*, **122**, 289-292 (2000).
104. S. He, M.D. Timmer, M.J. Yaszemski, A.W. Yasko, P.S. Engel, and A.G. Mikos, "Synthesis of Biodegradable Poly(Propylene Fumarate) Networks with Poly(Propylene Fumarate)-Diacrylate Macromers as Crosslinking Agents and Characterization of Their Degradation Products," *Polymer*, **42**, 1251-1260 (2001).
105. L. Lu, K. Nyalakonda, L. Kam, R. Bizios, A. Göpferich, and A.G. Mikos, "Retinal Pigment Epithelial Cell Adhesion on Novel Micropatterned Surfaces Fabricated from Synthetic Biodegradable Polymers," *Biomaterials*, **22**, 291-297 (2001).
106. J.S. Blum, R.H. Li, A.G. Mikos, and M.A. Barry, "An Optimized Method for the Chemiluminescent Detection of Alkaline Phosphatase Levels during Osteodifferentiation by Bone Morphogenetic Protein 2," *J. Cell. Biochem.*, **80**, 532-537 (2001).
107. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Gene Delivery Affects Endothelial Cell Function and Viability," *Biomaterials*, **22**, 471-480 (2001).
108. S. Jo, H. Shin, and A.G. Mikos, "Modification of Oligo(Poly(Ethylene Glycol) Fumarate) Macromer with GRGD Peptide for the Preparation of Functionalized Polymer Networks," *Biomacromolecules*, **2**, 255-261 (2001).
109. A.S. Goldstein, T.M. Juarez, C.D. Helmke, M.C. Gustin, and A.G. Mikos, "Effect of Convection on Osteoblastic Cell Growth and Function in Biodegradable Polymer Foam Scaffolds," *Biomaterials*, **22**, 1279-1288 (2001).
110. S. Jo, H. Shin, A.K. Shung, J.P. Fisher, and A.G. Mikos, "Synthesis and Characterization of Oligo(Poly(Ethylene Glycol) Fumarate) Macromer," *Macromolecules*, **34**, 2839-2844 (2001).
111. L. Lu, M.J. Yaszemski, and A.G. Mikos, "TGF- β 1 Release from Biodegradable Polymer Microparticles: Its Effects on Marrow Stromal Osteoblast Function," *J. Bone Joint Surg.*, **83-A (Suppl. 1)**, 82-91 (2001).
112. W.T. Godbey and A.G. Mikos, "Recent Progress in Gene Delivery Using Non-Viral Transfer Complexes," *J. Controlled Release*, **72**, 115-125 (2001).
113. G. Liu, S.G. Eskin, and A.G. Mikos, "Integrin $\alpha_v\beta_3$ Is Involved in Stimulated Migration of Vascular Adventitial Fibroblasts by Basic Fibroblast Growth Factor but not Platelet-Derived Growth Factor," *J. Cell. Biochem.*, **83**, 129-135 (2001).
114. J.P. Fisher, T.A. Holland, D. Dean, P.S. Engel, and A.G. Mikos, "Synthesis and Properties of Photocross-linked Poly(Propylene Fumarate) Scaffolds," *J. Biomater. Sci., Polym. Ed.*, **12**, 673-687 (2001).
115. V.I. Sikavitsas, J.S. Temenoff, and A.G. Mikos, "Biomaterials and Bone Mechanotransduction," *Biomaterials*, **22**, 2581-2593 (2001).
116. J.P. Fisher, D. Dean, P.S. Engel, and A.G. Mikos, "Photoinitiated Polymerization of Biomaterials," *Ann. Rev. Mater. Res.*, **31**, 171-181 (2001).

117. L. Lu, M.J. Yaszemski, and A.G. Mikos, "Retinal Pigment Epithelium Engineering Using Synthetic Biodegradable Polymers," *Biomaterials*, 22, 3345-3355 (2001).
118. J.S. Temenoff, K.A. Athanasiou, R.G. LeBaron, and A.G. Mikos, "Effect of Poly(Ethylene Glycol) Molecular Weight on Tensile and Swelling Properties of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Cartilage Tissue Engineering," *J. Biomed. Mater. Res.*, 59, 429-437 (2002).
119. J.P. Fisher, J.W.M. Vehof, D. Dean, J.P.C.M. van der Waerden, T.A. Holland, A.G. Mikos, and J.A. Jansen, "Soft and Hard Tissue Response to Photocrosslinked Poly(Propylene Fumarate) Scaffolds in a Rabbit Model," *J. Biomed. Mater. Res.*, 59, 547-556 (2002).
120. J.K. Tessmar, A.G. Mikos, and A. Göpferich, "Amine-Reactive Biodegradable Diblock Copolymers," *Biomacromolecules*, 3, 194-200 (2002).
121. J.W.M. Vehof, J.P. Fisher, D. Dean, J.-P.C.M. van der Waerden, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Bone Formation in Transforming Growth Factor- β 1-Coated Porous Poly(Propylene Fumarate) Scaffolds," *J. Biomed. Mater. Res.*, 60, 241-251 (2002).
122. E. Behraves, A.K. Shung, S. Jo, and A.G. Mikos, "Synthesis and Characterization of Triblock Copolymers of Methoxy Poly(Ethylene Glycol) and Poly(Propylene Fumarate)," *Biomacromolecules*, 3, 153-158 (2002).
123. E. Behraves, S. Jo, K. Zygourakis, and A.G. Mikos, "Synthesis of *In Situ* Crosslinkable Macroporous Biodegradable Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *Biomacromolecules*, 3, 374-381 (2002).
124. A.K. Shung, M.D. Timmer, S. Jo, P.S. Engel, and A.G. Mikos, "Kinetics of Poly(Propylene Fumarate) Synthesis by Step Polymerization of Diethyl Fumarate and Propylene Glycol Using Zinc Chloride as a Catalyst," *J. Biomater. Sci., Polym. Ed.*, 13, 95-108 (2002).
125. M.S. Wolfe, D. Dean, J.E. Chen, J.P. Fisher, S. Han, C.M. Rimnac, and A.G. Mikos, "*In Vitro* Degradation and Fracture Toughness of Multilayered Porous Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Scaffolds," *J. Biomed. Mater. Res.*, 61, 159-164 (2002).
126. H. Shin, S. Jo, and A.G. Mikos, "Modulation of Marrow Stromal Osteoblast Adhesion on Biomimetic Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Modified with Arg-Gly-Asp Peptides and a Poly(Ethylene Glycol) Spacer," *J. Biomed. Mater. Res.*, 61, 169-179 (2002).
127. M.D. Timmer, S. Jo, C. Wang, C.G. Ambrose, and A.G. Mikos, "Characterization of the Cross-Linked Structure of Fumarate-Based Degradable Polymer Networks," *Macromolecules*, 35, 4373-4379 (2002).
128. G.R.D. Evans, K. Brandt, S. Katz, P. Chauvin, L. Otto, M. Bogle, B. Wang, R.K. Meszlenyi, L. Lu, A.G. Mikos, and C.W. Patrick, Jr., "Bioactive Poly(L-Lactic Acid) Conduits Seeded with Schwann Cells for Peripheral Nerve Regeneration," *Biomaterials*, 23, 841-848 (2002).
129. V.I. Sikavitsas, G.N. Bancroft, and A.G. Mikos, "Formation of Three-Dimensional Cell/Polymer Constructs for Bone Tissue Engineering in a Spinner Flask and a Rotating Wall Vessel Bioreactor," *J. Biomed. Mater. Res.*, 62, 136-148 (2002).
130. J.P. Fisher, D. Dean, and A.G. Mikos, "Photocrosslinking Characteristics and Mechanical Properties of Diethyl Fumarate/Poly(Propylene Fumarate) Biomaterials," *Biomaterials*, 23, 4333-4343 (2002).
131. R.G. Payne, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "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*, 23, 4359-4371 (2002).
132. R.G. Payne, J.S. McGonigle, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Development of an Injectable, *In Situ* Crosslinkable, Degradable Polymeric Carrier for Osteogenic Populations. Part 2. Viability of Encapsulated Marrow Stromal Osteoblasts Cultured on Crosslinking Poly(Propylene Fumarate)," *Biomaterials*, 23, 4373-4380 (2002).
133. R.G. Payne, J.S. McGonigle, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Development of an Injectable, *In Situ* Crosslinkable, Degradable Polymeric Carrier for Osteogenic Populations. Part 3. Proliferation and Differentiation of Encapsulated Marrow Stromal Osteoblasts Cultured on Crosslinking Poly(Propylene Fumarate)" *Biomaterials*, 23, 4381-4387 (2002).
134. E.L. Chaikof, H. Matthew, J. Kohn, A.G. Mikos, G.D. Prestwich, and C.M. Yip, "Biomaterials and Scaffolds in Reparative Medicine," *Ann. N.Y. Acad. Sci.*, 961, 96-105 (2002).
135. E.L. Chaikof, H. Matthew, J. Kohn, G.D. Prestwich, A.G. Mikos, and C.M. Yip, "Bioscaffolds for Tissue Repair," *Ann. N.Y. Acad. Sci.*, 961, 112-113 (2002).

136. K. Tanahashi and A.G. Mikos, "Cell Adhesion on Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomed. Mater. Res.*, 62, 558-566 (2002).
137. K. Tanahashi, S. Jo, and A.G. Mikos, "Synthesis and Characterization of Biodegradable Cationic Poly(Propylene Fumarate-co-Ethylene Glycol) Copolymer Hydrogels Modified with Agmatine for Enhanced Cell Adhesion," *Biomacromolecules*, 3, 1030-1037 (2002).
138. G.N. Bancroft, V.I. Sikavitsas, J. van den Dolder, T.L. Sheffield, C.G. Ambrose, J.A. Jansen, and A.G. Mikos, "Fluid Flow Increases Mineralized Matrix Deposition in 3D Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," *Proceed. Natl. Acad. Sci. USA*, 99, 12600-12605 (2002).
139. E. Behraves, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, and A.G. Mikos, "Evaluation of the *In Vitro* Degradation of Macroporous Hydrogels Using Gravimetry, Confined Compression Testing, and Microcomputed Tomography," *Biomacromolecules*, 3, 1263-1270 (2002).
140. E.L. Hedberg, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of an Osteogenic Peptide from Injectable Biodegradable Polymeric Composites," *J. Controlled Release*, 84, 137-150 (2002).
141. M.D. Timmer, C.G. Ambrose, and A.G. Mikos, "*In Vitro* Degradation of Polymeric Networks of Poly(Propylene Fumarate) and the Crosslinking Macromer Poly(Propylene Fumarate)-Diacrylate," *Biomaterials*, 24, 571-577 (2003).
142. T.A. Holland and A.G. Mikos, "Advances in Drug Delivery for Articular Cartilage," *J. Controlled Release*, 86, 1-14 (2003).
143. J. van den Dolder, G.N. Bancroft, V.I. Sikavitsas, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture of Marrow Stromal Osteoblasts in Titanium Fiber Mesh," *J. Biomed. Mater. Res. Part A*, 64A, 235-241 (2003).
144. M.N. Cooke, J.P. Fisher, D. Dean, C. Rimnac, and A.G. Mikos, "Use of Stereolithography to Manufacture Critical-Sized 3D Biodegradable Scaffolds for Bone Ingrowth," *J. Biomed. Mater. Res. Part B: Appl. Biomater.*, 64B, 65-69 (2003).
145. E. Lieb, J. Tessmar, M. Hacker, C. Fischbach, D. Rose, T. Blunk, A.G. Mikos, A. Göpferich, and M.B. Schulz, "Poly(D,L-Lactic Acid)-Poly(Ethylene Glycol)-Monomethyl Ether Diblock Copolymers Control Adhesion and Osteoblastic Differentiation of Marrow Stromal Cells," *Tissue Eng.*, 9, 71-84 (2003).
146. E. Behraves, K. Zygourakis, and A.G. Mikos, "Adhesion and Migration of Marrow-Derived Osteoblasts on Injectable *In Situ* Crosslinkable Poly(Propylene Fumarate-Co-Ethylene Glycol) Based Hydrogels with a Covalently Linked RGDS Peptide," *J. Biomed. Mater. Res. Part A*, 65A, 261-271 (2003).
147. M.D. Timmer, R.A. Horch, C.G. Ambrose, and A.G. Mikos, "Effect of Physiological Temperature on the Mechanical Properties and Network Structure of Biodegradable Poly(Propylene Fumarate)-Based Networks," *J. Biomater. Sci., Polym. Ed.*, 14, 369-382 (2003).
148. H. Shin, J.S. Temenoff, and A.G. Mikos, "*In Vitro* Cytotoxicity of Unsaturated Oligo(Poly(Ethylene Glycol) Fumarate) Macromers and their Crosslinked Hydrogels," *Biomacromolecules*, 4, 552-560 (2003).
149. A.K. Shung, E. Behraves, S. Jo, and A.G. Mikos, "Crosslinking Characteristics of and Cell Adhesion to an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogel Using a Water Soluble Crosslinking System," *Tissue Eng.*, 9, 243-254 (2003).
150. H. Shin, P.Q. Ruhé, A.G. Mikos, and J.A. Jansen, "*In Vivo* Bone and Soft Tissue Response to Injectable Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Biomaterials*, 24, 3201-3211 (2003).
151. D. Dean, N.S. Topham, S.C. Meneghetti, M.S. Wolfe, K. Jepsen, S. He, J.E.-K. Chen, J.P. Fisher, M. Cooke, C. Rimnac, and A.G. Mikos, "Poly(Propylene Fumarate) and Poly(DL-Lactic-co-Glycolic Acid) as Scaffold Materials for Solid and Foam-Coated Composite Tissue-Engineered Constructs for Cranial Reconstruction," *Tissue Eng.*, 9, 495-504 (2003).
152. J. van den Dolder, G.N. Bancroft, V.I. Sikavitsas, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Effect of Fibronectin- and Collagen I-Coated Titanium Fiber Mesh on Proliferation and Differentiation of Osteogenic Cells," *Tissue Eng.*, 9, 505-515 (2003).
153. G.N. Bancroft, V.I. Sikavitsas, and A.G. Mikos, "Design of a Flow Perfusion Bioreactor System for Bone Tissue-Engineering Applications," *Tissue Eng.*, 9, 549-554 (2003).

154. M.D. Timmer, H. Shin, R.A. Horch, C.G. Ambrose, and A.G. Mikos, "In Vitro Cytotoxicity of Injectable and Biodegradable Poly(Propylene Fumarate)-Based Networks: Unreacted Macromers, Cross-Linked Networks, and Degradation Products," *Biomacromolecules*, **4**, 1026-1033 (2003).
155. E. Behravesch and A.G. Mikos, "Three-Dimensional Culture of Differentiating Marrow Stromal Osteoblasts in Biomimetic Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Macroporous Hydrogels," *J. Biomed. Mater. Res. Part A*, **66A**, 698-706 (2003).
156. M.D. Timmer, C.G. Ambrose, and A.G. Mikos, "Evaluation of Thermal- and Photo-Crosslinked Biodegradable Poly(Propylene Fumarate)-Based Networks," *J. Biomed. Mater. Res. Part A*, **66A**, 811-818 (2003).
157. H. Shin, S. Jo, and A.G. Mikos, "Biomimetic Materials for Tissue Engineering," *Biomaterials*, **24**, 4353-4364 (2003).
158. E. Behravesch, V.I. Sikavitsas, and A.G. Mikos, "Quantification of Ligand Surface Concentration of Bulk-Modified Biomimetic Hydrogels," *Biomaterials*, **24**, 4365-4374 (2003).
159. J.K. Tessmar, A.G. Mikos, and A. Göpferich, "The Use of Poly(Ethylene Glycol)-block-Poly(Lactic Acid) Derived Copolymers for the Rapid Creation of Biomimetic Surfaces," *Biomaterials*, **24**, 4475-4486 (2003).
160. T.A. Holland, Y. Tabata, and A.G. Mikos, "In Vitro Release of Transforming Growth Factor- β 1 from Gelatin Microparticles Encapsulated in Biodegradable, Injectable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *J. Controlled Release*, **91**, 299-313 (2003).
161. M.E. Gomes, V.I. Sikavitsas, E. Behravesch, R.L. Reis, and A.G. Mikos, "Effect of Flow Perfusion on the Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured on Starch-Based Three-Dimensional Scaffolds," *J. Biomed. Mater. Res. Part A*, **67A**, 87-95 (2003).
162. M.D. Timmer, C. Carter, C.G. Ambrose, and A.G. Mikos, "Fabrication of Poly(Propylene Fumarate)-Based Orthopaedic Implants by Photo-Crosslinking Through Transparent Silicone Molds," *Biomaterials*, **24**, 4707-4714 (2003).
163. J.P. Fisher, M.D. Timmer, T.A. Holland, D. Dean, P.S. Engel, and A.G. Mikos, "Photoinitiated Cross-Linking of the Biodegradable Polyester Poly(Propylene Fumarate). Part I: Determination of Network Structure," *Biomacromolecules*, **4**, 1327-1334 (2003).
164. J.P. Fisher, T.A. Holland, D. Dean, and A.G. Mikos, "Photoinitiated Crosslinking of the Biodegradable Polyester Poly(Propylene Fumarate). Part II: In Vitro Degradation," *Biomacromolecules*, **4**, 1335-1342 (2003).
165. J.S. Temenoff, E.S. Steinbis, and A.G. Mikos, "Effect of Drying History on Swelling Properties and Cell Attachment to Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Guided Tissue Regeneration Applications," *J. Biomater. Sci., Polym. Ed.*, **14**, 989-1004 (2003).
166. P.Q. Ruhé, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "rhBMP-2 Release from Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," *J. Bone Joint Surg.*, **85-A, Suppl. 3**, 75-81 (2003).
167. Z. Lalani, M. Wong, E.M. Brey, A.G. Mikos, and P.J. Duke, "Spatial and Temporal Localization of Transforming Growth Factor- β 1, Bone Morphogenetic Protein-2, and Platelet-Derived Growth Factor-A in Healing Tooth Extraction Sockets in a Rabbit Model," *J. Oral Maxillofac. Surg.*, **61**, 1061-1072 (2003).
168. K. Tanahashi and A.G. Mikos, "Protein Adsorption and Smooth Muscle Cell Adhesion on Biodegradable Arginine-Modified Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomed. Mater. Res. Part A*, **67A**, 448-457 (2003).
169. J.S. Temenoff, H. Shin, D.E. Conway, P.S. Engel, and A.G. Mikos, "In Vitro Cytotoxicity of Redox Radical Initiators for Crosslinking of Oligo(Poly(Ethylene Glycol) Fumarate) Macromers," *Biomacromolecules*, **4**, 1605-1613 (2003).
170. V.I. Sikavitsas, J. van den Dolder, G.N. Bancroft, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "Influence of the In Vitro Culture Period on the In Vivo Performance of Cell/Titanium Bone Tissue Engineered Constructs Using a Rat Cranial Critical Size Defect Model," *J. Biomed. Mater. Res. Part A*, **67A**, 944-951 (2003).
171. J.S. Blum, M.A. Barry, and A.G. Mikos, "Bone Regeneration through Transplantation of Genetically Modified Cells," *Clin. Plast. Surg.*, **30**, 611-620 (2003).
172. K. Tanahashi and A.G. Mikos, "Effect of Hydrophilicity and Arginine Modification on Degradation of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *J. Biomed. Mater. Res. Part A*, **67A**, 1148-1154 (2003).

173. C.G. Ambrose, G.R. Gogola, T.A. Clyburn, A.K. Raymond, A.S. Peng, and A.G. Mikos, "Antibiotic Microspheres: Preliminary Testing for Potential Treatment of Osteomyelitis," *Clin. Orthop. Rel. Res.*, **415**, 279-285 (2003).
174. J.S. Blum, M.A. Barry, A.G. Mikos, and J.A. Jansen, "In Vivo Evaluation of Gene Therapy Vectors in Ex Vivo Derived Marrow Stromal Cells for Bone Regeneration in a Rat Critical Size Calvarial Defect Model," *Human Gene Therapy*, **14**, 1689-1701 (2003).
175. V.I. Sikavitsas, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Mineralized Matrix Deposition by Marrow Stromal Osteoblasts in 3D Perfusion Culture Increases with Increasing Fluid Shear Forces," *Proceed. Natl. Acad. Sci. USA*, **100**, 14683-14688 (2003).
176. H. Shin, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Attachment, Proliferation, and Migration of Marrow Stromal Osteoblasts Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," *Biomaterials*, **25**, 895-906 (2004).
177. T.A. Holland, J.K.V. Tessmar, Y. Tabata, and A.G. Mikos, "Transforming Growth Factor- β 1 Release from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels in Conditions Which Model the Cartilage Wound Healing Environment," *J. Controlled Release*, **94**, 101-114 (2004).
178. J.S. Temenoff, H. Park, E. Jabbari, D.E. Conway, T.L. Sheffield, C.G. Ambrose, and A.G. Mikos, "Thermally-Crosslinked Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Support Osteogenic Differentiation of Encapsulated Marrow Stromal Cells *In Vitro*," *Biomacromolecules*, **5**, 5-10 (2004).
179. J.S. Blum, M.B. Parrott, A.G. Mikos, and M.A. Barry, "Early Osteoblastic Differentiation Induced by Dexamethasone Enhances Adenoviral Gene Delivery to Marrow Stromal Cells," *J. Orthop. Res.*, **22**, 411-416 (2004).
180. J.P. Fisher, Z. Lalani, C.M. Bossano, E.M. Brey, N. Demian, C.M. Johnston, D. Dean, J.A. Jansen, M.E.K. Wong, and A.G. Mikos, "Effect of Biomaterial Properties on Bone Healing in a Rabbit Tooth Extraction Socket Model," *J. Biomed. Mater. Res. Part A*, **68A**, 428-438 (2004).
181. Z. Lalani, M.E.K. Wong, E.M. Brey, A.G. Mikos, P.J. Duke, and C. Johnston, "Spatial and Temporal Localization of Secretory IgA in Healing Tooth Extraction Sockets in a Rabbit Model," *J. Oral Maxillofac. Surg.*, **62**, 466-472 (2004).
182. C.G. Ambrose, T.A. Clyburn, K. Loudon, J. Joseph, J. Wright, P. Gulati, G.R. Gogola, and A.G. Mikos, "Effective Treatment of Osteomyelitis with Biodegradable Microspheres in a Rabbit Model," *Clin. Orthop. Rel. Res.*, **421**, 293-299 (2004).
183. H. Shin, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Modulation of Differentiation and Mineralization of Marrow Stromal Cells Cultured on Biomimetic Hydrogels Modified with Arg-Gly-Asp Containing Peptides," *J. Biomed. Mater. Res. Part A*, **69A**, 535-543 (2004).
184. J.S. Blum, J.S. Temenoff, H. Park, J.A. Jansen, A.G. Mikos, and M.A. Barry, "Development and Characterization of Enhanced Green Fluorescent Protein and Luciferase Expressing Cell Line for Non-Destructive Evaluation of Tissue Engineering Constructs," *Biomaterials*, **25**, 5809-5819 (2004).
185. Z.S. Patel and A.G. Mikos, "Angiogenesis with Biomaterial-Based Drug- and Cell-Delivery Systems," *J. Biomater. Sci., Polym. Ed.*, **15**, 701-726 (2004).
186. J.S. Temenoff, H. Park, E. Jabbari, T.L. Sheffield, R.G. LeBaron, C.G. Ambrose, and A.G. Mikos, "In Vitro Osteogenic Differentiation of Marrow Stromal Cells Encapsulated in Biodegradable Hydrogels," *J. Biomed. Mater. Res. Part A*, **70A**, 235-244 (2004).
187. R.A. Horch, N. Shahid, A.S. Mistry, M.D. Timmer, A.G. Mikos, and A.R. Barron, "Nanoreinforcement of Poly(Propylene Fumarate)-Based Networks with Surface Modified Alumoxane Nanoparticles for Bone Tissue Engineering," *Biomacromolecules*, **5**, 1990-1998 (2004).
188. J.P. Fisher, S. Jo, A.G. Mikos, and A.H. Reddi, "Thermoreversible Hydrogel Scaffolds for Articular Cartilage Engineering," *J. Biomed. Mater. Res. Part A*, **71A**, 268-274 (2004).
189. E.L. Hedberg, C.K. Shih, L.A. Solchaga, A.I. Caplan, and A.G. Mikos, "Controlled Release of Hyaluronan Oligomers from Biodegradable Polymeric Microparticle Carriers," *J. Controlled Release*, **100**, 257-266 (2004).
190. N. Datta, H.L. Holtorf, V.I. Sikavitsas, J.A. Jansen, and A.G. Mikos, "Effect of Bone Extracellular Matrix Synthesized *In Vitro* on the Osteoblastic Differentiation of Marrow Stromal Cells," *Biomaterials*, **26**, 971-977 (2005).
191. V.I. Sikavitsas, G.N. Bancroft, J.J. Lemoine, M.A.K. Liebschner, M. Dauner, and A.G. Mikos, "Flow Perfusion Enhances the Calcified Matrix Deposition of Marrow Stromal Cells in Biodegradable Nonwoven Fiber Mesh Scaffolds," *Ann. Biomed. Eng.*, **33**, 63-70 (2005).

192. T.A. Holland, Y. Tabata, and A.G. Mikos, "Dual Growth Factor Delivery from Degradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Scaffolds for Cartilage Tissue Engineering," *J. Controlled Release*, **101**, 111-125 (2005).
193. J.A. Jansen, J.W.M. Vehof, P.Q. Ruhé, H. Kroeze-Deutman, Y. Kuboki, H. Takita, E.L. Hedberg, and A.G. Mikos, "Growth Factor-Loaded Scaffolds for Bone Engineering," *J. Controlled Release*, **101**, 127-136 (2005).
194. E.L. Hedberg, C.K. Shih, J.J. Lemoine, M.D. Timmer, M.A.K. Liebschner, J.A. Jansen, and A.G. Mikos, "In Vitro Degradation of Porous Poly(Propylene Fumarate)/Poly(DL-Lactic-co-Glycolic Acid) Composite Scaffolds," *Biomaterials*, **26**, 3215-3225 (2005).
195. H. Shin, J.S. Temenoff, G.C. Bowden, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Osteogenic Differentiation of Rat Bone Marrow Stromal Cells Cultured on Arg-Gly-Asp Modified Hydrogels without Dexamethasone and β -Glycerol Phosphate," *Biomaterials*, **26**, 3645-3654 (2005).
196. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture Induces the Osteoblastic Differentiation of Marrow Stromal Cell-Scaffold Constructs in the Absence of Dexamethasone," *J. Biomed. Mater. Res. Part A*, **72A**, 326-334 (2005).
197. E.L. Hedberg, H.C. Kroeze-Deutman, C.K. Shih, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "In Vivo Degradation of Porous Poly(Propylene Fumarate)/Poly(DL-Lactic-co-Glycolic Acid) Composite Scaffolds," *Biomaterials*, **26**, 4616-4623 (2005).
198. E.L. Hedberg, H.C. Kroeze-Deutman, C.K. Shih, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "Effect of Varied Release Kinetics of the Osteogenic Thrombin Peptide TP508 from Biodegradable, Polymeric Scaffolds on Bone Formation In Vivo," *J. Biomed. Mater. Res. Part A*, **72A**, 343-353 (2005).
199. L.A. Solchaga, J.S. Temenoff, J. Gao, A.G. Mikos, A.I. Caplan, and V.M. Goldberg, "Repair of Osteochondral Defects with Hyaluronan- and Polyester-Based Scaffolds," *Osteoarthritis Cartilage*, **13**, 297-309 (2005).
200. A.S. Mistry and A.G. Mikos, "Tissue Engineering Strategies for Bone Regeneration," *Adv. Biochem. Eng. Biotechnol.*, **94**, 1-22 (2005).
201. F.K. Kasper, S.K. Seidlits, A. Tang, R.S. Crowther, D.H. Carney, M.A. Barry, and A.G. Mikos, "In Vitro Release of Plasmid DNA from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *J. Controlled Release*, **104**, 521-539 (2005).
202. X. Shi, J.L. Hudson, P.P. Spicer, J.M. Tour, R. Krishnamoorti, and A.G. Mikos, "Rheological Behavior and Mechanical Characterization of Injectable Poly(Propylene Fumarate)/Single-Walled Carbon Nanotube Composites for Bone Tissue Engineering," *Nanotechnology*, **16**, S531-S538 (2005).
203. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Ectopic Bone Formation in Rat Marrow Stromal Cell/Titanium Fiber Mesh Scaffold Constructs: Effect of Initial Cell Phenotype," *Biomaterials*, **26**, 6208-6216 (2005).
204. H.L. Holtorf, N. Datta, J.A. Jansen, and A.G. Mikos, "Scaffold Mesh Size Affects the Osteoblastic Differentiation of Seeded Marrow Stromal Cells Cultured in a Flow Perfusion Bioreactor," *J. Biomed. Mater. Res. Part A*, **74A**, 171-180 (2005).
205. H.L. Holtorf, T.L. Sheffield, C.G. Ambrose, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture of Marrow Stromal Cells Seeded on Porous Biphasic Calcium Phosphate Ceramics," *Ann. Biomed. Eng.*, **33**, 1238-1248 (2005).
206. D. Dean, M.S. Wolfe, Y. Ahmad, A. Totonchi, J.E.-K. Chen, J.P. Fisher, M.N. Cooke, C.M. Rimnac, D.P. Lennon, A.I. Caplan, N.S. Topham, and A.G. Mikos, "Effect of Transforming Growth Factor β 2 on Marrow-Infused Foam Poly(Propylene Fumarate) Tissue-Engineered Constructs for the Repair of Critical-Size Cranial Defects in Rabbits," *Tissue Eng.*, **11**, 923-939 (2005).
207. H. Park, J.S. Temenoff, T.A. Holland, Y. Tabata, and A.G. Mikos, "Delivery of TGF- β 1 and Chondrocytes via Injectable, Biodegradable Hydrogels for Cartilage Tissue Engineering Applications," *Biomaterials*, **26**, 7095-7103 (2005).
208. P.Q. Ruhé, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "Biocompatibility and Degradation of Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," *J. Biomed. Mater. Res. Part A*, **74A**, 533-544 (2005).
209. P.Q. Ruhé, O.C. Boerman, F.G.M. Russel, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Controlled Release of rhBMP-2 Loaded Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites In Vivo," *J. Controlled Release*, **106**, 162-171 (2005).

210. T.A. Holland, E.W.H. Bodde, L.S. Baggett, Y. Tabata, A.G. Mikos, and J.A. Jansen, "Osteochondral Repair in the Rabbit Model Utilizing Bilayered, Degradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Scaffolds," *J. Biomed. Mater. Res. Part A*, 75A, 156-167 (2005).
211. Z. Lalani, M. Wong, E.M. Brey, A.G. Mikos, P.J. Duke, M.J. Miller, C. Johnston, and D. Montufar-Solis, "Spatial and Temporal Localization of FGF-2 and VEGF in Healing Tooth Extraction Sockets in a Rabbit Model," *J. Oral Maxillofac. Surg.*, 63, 1500-1508 (2005).
212. F.K. Kasper, T. Kushibiki, Y. Kimura, A.G. Mikos, and Y. Tabata, "In Vivo Release of Plasmid DNA from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres," *J. Controlled Release*, 107, 547-561 (2005).
213. E.L. Hedberg, H.C. Kroese-Deutman, C.K. Shih, J.J. Lemoine, M.A.K. Liebcshner, M.J. Miller, A.W. Yasko, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "A Comparative Analysis of Radiography, Microcomputed Tomography, and Histology for Bone Tissue Engineering," *Tissue Eng.*, 11, 1356-1367 (2005).
214. C.-Y. Lin, R.M. Schek, A.S. Mistry, X. Shi, A.G. Mikos, P.H. Krebsbach, and S.J. Hollister, "Functional Bone Engineering Using Ex Vivo Gene Therapy and Topology-Optimized, Biodegradable Polymer Composite Scaffolds," *Tissue Eng.*, 11, 1589-1598 (2005).
215. S. Young, M. Wong, Y. Tabata, and A.G. Mikos, "Gelatin as a Delivery Vehicle for the Controlled Release of Bioactive Molecules," *J. Controlled Release*, 109, 256-274 (2005).
216. N. Datta, Q.P. Pham, U. Sharma, V.I. Sikavitsas, J.A. Jansen, and A.G. Mikos, "In Vitro Generated Extracellular Matrix and Fluid Shear Stress Synergistically Enhance 3D Osteoblastic Differentiation," *Proceed. Natl. Acad. Sci. USA*, 103, 2488-2493 (2006).
217. M.E. Gomes, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "In Vitro Localization of Bone Growth Factors in Constructs of Biodegradable Scaffolds Seeded with Marrow Stromal Cells and Cultured in a Flow Perfusion Bioreactor," *Tissue Eng.*, 12, 177-188 (2006).
218. P.Q. Ruhé, E.L. Hedberg-Dirk, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "Porous Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composite for Reconstruction of Bone Defects," *Tissue Eng.*, 12, 789-800 (2006).
219. M.E. Gomes, H.L. Holtorf, R.L. Reis, and A.G. Mikos, "Influence of the Porosity of Starch-Based Fiber Mesh Scaffolds on the Proliferation and Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured in a Flow Perfusion Bioreactor," *Tissue Eng.*, 12, 801-809 (2006).
220. Q.P. Pham, U. Sharma, and A.G. Mikos, "Electrospinning of Polymeric Nanofibers for Tissue Engineering Applications: A Review," *Tissue Eng.*, 12, 1197-1211 (2006).
221. F.K. Kasper, S. Young, K. Tanahashi, M.A. Barry, Y. Tabata, J.A. Jansen, and A.G. Mikos, "Evaluation of Bone Regeneration by DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres in a Critical-Sized Calvarial Defect," *J. Biomed. Mater. Res. Part A*, 78A, 335-342 (2006).
222. A. Saraf and A.G. Mikos, "Gene Delivery Strategies for Cartilage Tissue Engineering," *Adv. Drug Deliv. Rev.*, 58, 592-603 (2006).
223. X. Shi, J.L. Hudson, P.P. Spicer, J.M. Tour, R. Krishnamoorti, and A.G. Mikos, "Injectable Nanocomposites of Single-Walled Carbon Nanotubes and Biodegradable Polymers for Bone Tissue Engineering," *Biomacromolecules*, 7, 2237-2242 (2006).
224. F.K. Kasper, E. Jerkins, K. Tanahashi, M.A. Barry, Y. Tabata, and A.G. Mikos, "Characterization of DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres In Vitro," *J. Biomed. Mater. Res. Part A*, 78A, 823-835 (2006).
225. M.C. Hacker and A.G. Mikos, "Trends in Tissue Engineering Research," *Tissue Eng.*, 12, 2049-2057 (2006).
226. W.J.E.M. Habraken, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Injectable PLGA Microsphere/Calcium Phosphate Cements: Physical Properties and Degradation Characteristics," *J. Biomater. Sci., Polym. Ed.*, 17, 1057-1074 (2006).
227. A. Haesslein, H. Ueda, M. Hacker, S. Jo, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Long-Term Release of Fluocinolone Acetonide Using Biodegradable Fumarate-Based Polymers," *J. Controlled Release*, 114, 251-260 (2006).
228. P.Q. Ruhé, O.C. Boerman, F.G.M. Russel, A.G. Mikos, P.H.M. Spauwen, and J.A. Jansen, "In Vivo Release of rhBMP-2 Loaded Porous Calcium Phosphate Cement Pretreated with Albumin," *J. Mater. Sci., Mater. Med.*, 17, 919-927 (2006).

229. T.A. Holland and A.G. Mikos, "Biodegradable Polymeric Scaffolds, Improvements in Bone Tissue Engineering through Controlled Drug Delivery," *Adv. Biochem. Eng. Biotechnol.*, 102, 161-185 (2006).
230. Q.P. Pham, U. Sharma, and A.G. Mikos, "Electrospun Poly(ϵ -Caprolactone) Microfiber and Multilayer Nanofiber/Microfiber Scaffolds: Characterization of Scaffolds and Measurement of Cellular Infiltration," *Biomacromolecules*, 7, 2796-2805 (2006).
231. A.G. Mikos, S.W. Herring, P. Ochareon, J. Elisseeff, H.H. Lu, R. Kandel, F.J. Schoen, M. Toner, D. Mooney, A. Atala, M.E. van Dyke, D. Kaplan, and G. Vunjak-Novakovic, "Engineering Complex Tissues," *Tissue Eng.*, 12, 3307-3339 (2006).
232. E.M. Christenson, K.S. Anseth, J.J.J.P. van den Beucken, C.K. Chan, B. Ercan, J.A. Jansen, C.T. Laurencin, W.-J. Li, R. Murugan, L.S. Nair, S. Ramakrishna, R.S. Tuan, T.J. Webster, and A.G. Mikos, "Nanobiomaterial Applications in Orthopaedics," *J. Orthop. Res.*, 25, 11-22 (2007).
233. T.A. Holland, E.W.H. Bodde, V.M.J.I. Cuijpers, L.S. Baggett, Y. Tabata, A.G. Mikos, and J.A. Jansen, "Degradable Hydrogel Scaffolds for *In Vivo* Evaluation of Growth Factor Interactions in Cartilage Repair," *Osteoarthritis Cartilage*, 15, 187-197 (2007).
234. H. Park, J.S. Temenoff, Y. Tabata, A.I. Caplan, and A.G. Mikos, "Injectable Biodegradable Hydrogel Composites for Rabbit Marrow Mesenchymal Stem Cell and Growth Factor Delivery for Cartilage Tissue Engineering," *Biomaterials*, 28, 3217-3227 (2007).
235. J.D. Kretlow and A.G. Mikos, "Mineralization of Synthetic Polymer Scaffolds for Bone Tissue Engineering," *Tissue Eng.*, 13, 927-938 (2007).
236. B. Sitharaman, X. Shi, L.A. Tran, P.P. Spicer, I. Rusakova, L.J. Wilson, and A.G. Mikos, "Injectable *In Situ* Crosslinkable Nanocomposites of Biodegradable Polymers and Carbon Nanostructures for Bone Tissue Engineering," *J. Biomater. Sci., Polym. Ed.*, 18, 655-671 (2007).
237. M. Hacker, M. Ringhofer, B. Appel, M. Neubauer, T. Vogel, S. Young, A.G. Mikos, T. Blunk, A. Göpferich, and M.B. Schulz, "Solid Lipid Templating of Macroporous Tissue Engineering Scaffolds," *Biomaterials*, 28, 3497-3507 (2007).
238. J.D. Kretlow, L. Klouda, and A.G. Mikos, "Injectable Matrices and Scaffolds for Drug Delivery in Tissue Engineering," *Adv. Drug Deliv. Rev.*, 59, 263-273 (2007).
239. J.M. Ashcroft, K.B. Hartman, K.R. Kissell, Y. Mackeyev, S. Pheasant, S. Young, P.A.W. Van der Heide, A.G. Mikos, and L.J. Wilson, "Single-Molecule I₂@US-Tube Nanocapsules: A New X-Ray Contrast-Agent Design," *Adv. Mater.*, 19, 573-576 (2007).
240. H. Castano-Izquierdo, J. Alvarez-Barreto, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas, "Pre-Culture Period of Mesenchymal Stem Cells in Osteogenic Media Influences their *In Vivo* Bone Forming Potential," *J. Biomed. Mater. Res. Part A*, 82A, 129-138 (2007).
241. B. Sitharaman, L.A. Tran, Q.P. Pham, R.D. Bolskar, R. Muthupillai, S.D. Flamm, A.G. Mikos, and L.J. Wilson, "Gadofullerenes as Nanoscale Magnetic Labels for Cellular MRI," *Contrast Media Mol. Imaging*, 2, 139-146 (2007).
242. M.B. Murphy, J.D. Hartgerink, A. Göpferich, and A.G. Mikos, "Synthesis and *In Vitro* Hydroxyapatite Binding of Peptides Conjugated to Calcium-Binding Moieties," *Biomacromolecules*, 8, 2237-2243 (2007).
243. X. Shi, B. Sitharaman, Q.P. Pham, F. Liang, K. Wu, W.E. Billups, L.J. Wilson, and A.G. Mikos, "Fabrication of Porous Ultra-Short Single-Walled Carbon Nanotube Nanocomposite Scaffolds for Bone Tissue Engineering," *Biomaterials*, 28, 4078-4090 (2007).
244. S.C.G. Leeuwenburgh, J.A. Jansen, and A.G. Mikos, "Functionalization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels with Finely Dispersed Calcium Phosphate Nanocrystals for Bone-Substituting Purposes," *J. Biomater. Sci., Polym. Ed.*, 18, 1547-1564 (2007).
245. H. Ueda, M.C. Hacker, A. Haesslein, S. Jo, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Injectable, *In Situ* Forming Poly(Propylene Fumarate)-Based Ocular Drug Delivery Systems," *J. Biomed. Mater. Res. Part A*, 83A, 656-666 (2007).
246. S. Kaihara, S. Matsumura, A.G. Mikos, and J.P. Fisher, "Synthesis of Poly(L-Lactide) and Polyglycolide by Ring-Opening Polymerization," *Nature Protocols*, 2, 2767-2771 (2007).
247. A.S. Mistry, A.G. Mikos, and J.A. Jansen, "Degradation and Biocompatibility of a Poly(Propylene Fumarate)-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," *J. Biomed. Mater. Res. Part A*, 83A, 940-953 (2007).
248. P.C. Johnson, A.G. Mikos, J.P. Fisher, and J.A. Jansen, "Strategic Directions in Tissue Engineering," *Tissue Eng.*, 13, 2827-2837 (2007).

249. E.M. Christenson, W. Soofi, J.L. Holm, N.R. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," *Biomacromolecules*, **8**, 3806-3814 (2007).
250. A. Haesslein, M.C. Hacker, and A.G. Mikos, "Effect of Macromer Molecular Weight on *In Vitro* Ophthalmic Drug Release from Photo-Crosslinked Matrices," *Acta Biomaterialia*, **4**, 1-10 (2008).
251. L. Klouda and A.G. Mikos, "Thermoresponsive Hydrogels in Biomedical Applications," *Eur. J. Pharm. Biopharm.*, **68**, 34-45 (2008).
252. D.P. Link, J. van den Dolder, J.J.J.P. van den Beucken, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Bone Response and Mechanical Strength of Rabbit Femoral Defects Filled with Injectable CaP Cements Containing TGF- β 1 Loaded Gelatin Microparticles," *Biomaterials*, **29**, 675-682 (2008).
253. E.W.H. Bodde, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Closing Capacity of Segmental Radius Defects in Rabbits," *J. Biomed. Mater. Res. Part A*, **85A**, 206-217 (2008).
254. Y. Khan, M.J. Yaszemski, A.G. Mikos, and C. Laurencin, "Tissue Engineering of Bone: Material and Matrix Considerations," *J. Bone Joint Surg.*, **90**, 36-42 (2008).
255. A. Saraf, M.C. Hacker, B. Sitharaman, K.J. Grande-Allen, M.A. Barry, and A.G. Mikos, "Synthesis and Conformational Evaluation of a Novel Gene Delivery Vector for Human Mesenchymal Stem Cells," *Biomacromolecules*, **9**, 818-827 (2008).
256. W.J.E.M. Habraken, Z. Zhang, J.G.C. Wolke, D.W. Grijpma, A.G. Mikos, J. Feijen, and J.A. Jansen, "Introduction of Enzymatically Degradable Poly(Trimethylene Carbonate) Microspheres into an Injectable Calcium Phosphate Cement," *Biomaterials*, **29**, 2464-2476 (2008).
257. Q.P. Pham, F.K. Kasper, L.S. Baggett, R.M. Raphael, J.A. Jansen, and A.G. Mikos, "The Influence of an *In Vitro* Generated Bone-like Extracellular Matrix on Osteoblastic Gene Expression of Marrow Stromal Cells," *Biomaterials*, **29**, 2729-2739 (2008).
258. S. Young, A.G. Bashoura, T. Borden, L.S. Baggett, J.A. Jansen, M. Wong, and A.G. Mikos, "Development and Characterization of a Rabbit Alveolar Bone Nonhealing Defect Model," *J. Biomed. Mater. Res. Part A*, **86A**, 182-194 (2008).
259. M.C. Hacker, L. Klouda, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Synthesis and Characterization of Injectable, Thermally and Chemically Gelable, Amphiphilic Poly(N-Isopropylacrylamide)-Based Macromers," *Biomacromolecules*, **9**, 1558-1570 (2008).
260. P.M. Mountziaris and A.G. Mikos, "Modulation of the Inflammatory Response for Enhanced Bone Tissue Regeneration," *Tissue Eng. Part B: Reviews*, **14**, 179-186 (2008).
261. B. Sitharaman, X. Shi, X.F. Walboomers, H. Liao, V. Cuijpers, L.J. Wilson, A.G. Mikos, and J.A. Jansen, "In Vivo Biocompatibility of Ultra-Short Single-Walled Carbon Nanotube/Biodegradable Polymer Nanocomposites for Bone Tissue Engineering," *Bone*, **43**, 362-370 (2008).
262. X. Shi, B. Sitharaman, Q.P. Pham, P.P. Spicer, J.L. Hudson, L.J. Wilson, J.M. Tour, R.M. Raphael, and A.G. Mikos, "In Vitro Cytotoxicity of Single-Walled Carbon Nanotube/Biodegradable Polymer Nanocomposites," *J. Biomed. Mater. Res. Part A*, **86A**, 813-823 (2008).
263. Z.S. Patel, M. Yamamoto, H. Ueda, Y. Tabata, and A.G. Mikos, "Biodegradable Gelatin Microparticles as Delivery Systems for the Controlled Release of Bone Morphogenetic Protein-2," *Acta Biomaterialia*, **4**, 1126-1138 (2008).
264. W.J.E.M. Habraken, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "PLGA Microsphere/Calcium Phosphate Cement Composites for Tissue Engineering: *In Vitro* Release and Degradation Characteristics," *J. Biomater. Sci., Polym. Ed.*, **19**, 1171-1188 (2008).
265. S. Young, J.D. Kretlow, C. Nguyen, A.G. Bashoura, L.S. Baggett, J.A. Jansen, M. Wong, and A.G. Mikos, "Microcomputed Tomography Characterization of Neovascularization in Bone Tissue Engineering Applications," *Tissue Eng. Part B: Reviews*, **14**, 295-306 (2008).
266. Z.S. Patel, H. Ueda, M. Yamamoto, Y. Tabata, and A.G. Mikos, "In Vitro and In Vivo Release of Vascular Endothelial Growth Factor from Gelatin Microparticles and Biodegradable Composite Scaffolds," *Pharm. Res.*, **25**, 2370-2378 (2008).
267. Z.S. Patel, S. Young, Y. Tabata, J.A. Jansen, M.E.K. Wong, and A.G. Mikos, "Dual Delivery of an Angiogenic and an Osteogenic Growth Factor for Bone Regeneration in a Critical Size Defect Model," *Bone*, **43**, 931-940 (2008).
268. W.J.E.M. Habraken, L.T. de Jonge, J.G.C. Wolke, L. Yubao, A.G. Mikos, and J.A. Jansen, "Introduction of Gelatin Microspheres into an Injectable Calcium Phosphate Cement," *J. Biomed. Mater. Res. Part A*, **87A**, 643-655 (2008).

269. D.P. Link, J. van den Dolder, J.J.J.P. van den Beucken, V.M. Cuijpers, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Evaluation of the Biocompatibility of Calcium Phosphate Cement/PLGA Microparticle Composites," *J. Biomed. Mater. Res. Part A*, **87A**, 760-769 (2008).
270. E.W.H. Bodde, O.C. Boerman, F.G.M. Russel, A.G. Mikos, P.H.M. Spauwen, and J.A. Jansen, "The Kinetic and Biological Activity of Different Loaded rhBMP-2 Calcium Phosphate Cement Implants in Rats," *J. Biomed. Mater. Res. Part A*, **87A**, 780-791 (2008).
271. B. Sitharaman, T.Y. Zakharian, A. Saraf, P. Misra, J. Ashcroft, S. Pan, Q.P. Pham, A.G. Mikos, L.J. Wilson, and D.A. Engler, "Water-Soluble Fullerene (C60) Derivatives as Nonviral Gene-Delivery Vectors," *Mol. Pharmacol.*, **5**, 567-578 (2008).
272. J.D. Kretlow, Y.-Q. Jin, W. Liu, W.J. Zhang, T.-H. Hong, G. Zhou, L.S. Baggett, A.G. Mikos, and Y. Cao, "Donor Age and Cell Passage Affect Differentiation Potential of Murine Bone Marrow-Derived Stem Cells," *BMC Cell Biology*, **9**, 60 (2008).
273. J.D. Kretlow and A.G. Mikos, "From Material to Tissue: Biomaterial Development, Scaffold Fabrication, and Tissue Engineering," *AIChE J.*, **54**, 3048-3067 (2008).
274. A. Haesslein, M.C. Hacker, H. Ueda, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Matrix Modifications Modulate Ophthalmic Drug Delivery from Photo-Cross-Linked Poly(Propylene Fumarate)-Based Networks," *J. Biomater. Sci., Polym. Ed.*, **20**, 49-69 (2009).
275. Q.P. Pham, F.K. Kasper, A.S. Mistry, U. Sharma, A.W. Yasko, J.A. Jansen, and A.G. Mikos, "Analysis of the Osteoinductive Capacity and Angiogenicity of an *In Vitro* Generated Extracellular Matrix," *J. Biomed. Mater. Res. Part A*, **88A**, 295-303 (2009).
276. P.M. Mountziaris, P.R. Kramer, and A.G. Mikos, "Emerging Intra-Articular Drug Delivery Systems for the Temporomandibular Joint," *Methods*, **47**, 134-140 (2009).
277. A.M. Martins, Q.P. Pham, P.B. Malafaya, R.A. Sousa, M.E. Gomes, R.M. Raphael, F.K. Kasper, R.L. Reis, and A.G. Mikos, "The Role of Lipase and α -Amylase in the Degradation of Starch/Poly(ϵ -Caprolactone) Fiber Meshes and the Osteogenic Differentiation of Cultured Marrow Stromal Cells," *Tissue Eng. Part A*, **15**, 295-305 (2009).
278. H. Park, J.S. Temenoff, Y. Tabata, A.I. Caplan, R.M. Raphael, J.A. Jansen, and A.G. Mikos, "Effect of Dual Growth Factor Delivery on Chondrogenic Differentiation of Rabbit Marrow Mesenchymal Stem Cells Encapsulated in Injectable Hydrogel Composites," *J. Biomed. Mater. Res. Part A*, **88A**, 889-897 (2009).
279. M.C. Hacker, A. Haesslein, H. Ueda, W.J. Foster, C.A. Garcia, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Biodegradable Fumarate-Based Drug Delivery Systems for Ophthalmic Applications," *J. Biomed. Mater. Res. Part A*, **88A**, 976-989 (2009).
280. L. Klouda and A.G. Mikos, "Biomaterials, Drug Delivery and Bionanotechnology - The Research that Paved the Way: Professor Nicholas Peppas' Research Over the Years," *Pharm. Res.*, **26**, 599-600 (2009).
281. H. Park, X. Guo, J.S. Temenoff, Y. Tabata, A.I. Caplan, F.K. Kasper, and A.G. Mikos, "Effect of Swelling Ratio of Injectable Hydrogel Composites on Chondrogenic Differentiation of Encapsulated Rabbit Marrow Mesenchymal Stem Cells *In Vitro*," *Biomacromolecules*, **10**, 541-546 (2009).
282. A.S. Mistry, S.H. Cheng, T. Yeh, E.M. Christenson, J.A. Jansen, and A.G. Mikos, "Fabrication and *In Vitro* Degradation of Porous Fumarate-Based Polymer/Alumoxane Nanocomposite Scaffolds for Bone Tissue Engineering," *J. Biomed. Mater. Res. Part A*, **89A**, 68-79 (2009).
283. X. Guo, H. Park, G. Liu, W. Liu, Y. Cao, Y. Tabata, F.K. Kasper, and A.G. Mikos, "*In Vitro* Generation of an Osteochondral Construct Using Injectable Hydrogel Composites Encapsulating Rabbit Marrow Mesenchymal Stem Cells," *Biomaterials*, **30**, 2741-2752 (2009).
284. F.K. Kasper, K. Tanahashi, J.P. Fisher, and A.G. Mikos, "Synthesis of Poly(Propylene Fumarate)," *Nature Protocols*, **4**, 518-525 (2009).
285. D.P. Link, J. van den Dolder, J.J.J.P. van den Beucken, W.J.E.M. Habraken, A. Soede, O.C. Boerman, A.G. Mikos, and J.A. Jansen, "Evaluation of an Orthotopically Implanted Calcium Phosphate Cement Containing Gelatin Microparticles," *J. Biomed. Mater. Res. Part A*, **90A**, 372-379 (2009).
286. K. Kim, D. Dean, A.G. Mikos, and J.P. Fisher, "Effect of Initial Cell Seeding Density on Early Osteogenic Signal Expression of Rat Bone Marrow Stromal Cells Cultured on Cross-Linked Poly(Propylene Fumarate) Disks," *Biomacromolecules*, **10**, 1810-1817 (2009).

287. L. Klouda, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Cytocompatibility Evaluation of Amphiphilic, Thermally Responsive and Chemically Crosslinkable Macromers for *In Situ* Forming Hydrogels," *Biomaterials*, **30**, 4558-4566 (2009).
288. A.M. Martins, Q.P. Pham, P.B. Malafaya, R.M. Raphael, F.K. Kasper, R.L. Reis, and A.G. Mikos, "Natural Stimulus Responsive Scaffolds/Cells for Bone Tissue Engineering: Influence of Lysozyme upon Scaffold Degradation and Osteogenic Differentiation of Cultured Marrow Stromal Cells Induced by CaP Coatings," *Tissue Eng. Part A*, **15**, 1953-1963 (2009).
289. S. Young, Z.S. Patel, J.D. Kretlow, M.B. Murphy, P.M. Mountziaris, L.S. Baggett, H. Ueda, Y. Tabata, J.A. Jansen, M. Wong, and A.G. Mikos, "Dose Effect of Dual Delivery of Vascular Endothelial Growth Factor and Bone Morphogenetic Protein-2 on Bone Regeneration in a Rat Critical-Size Defect Model," *Tissue Eng. Part A*, **15**, 2347-2362 (2009).
290. J.D. Kretlow, S. Young, L. Klouda, M. Wong, and A.G. Mikos, "Injectable Biomaterials for Regenerating Complex Craniofacial Tissues," *Adv. Mater.*, **21**, 3368-3393 (2009).
291. W.J.E.M. Habraken, O.C. Boerman, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "In Vitro Growth Factor Release from Injectable Calcium Phosphate Cements Containing Gelatin Microspheres," *J. Biomed. Mater. Res. Part A*, **91A**, 614-622 (2009).
292. S.A. Chew, M.C. Hacker, A. Saraf, R.R. Raphael, F.K. Kasper, and A.G. Mikos, "Biodegradable Branched Polycationic Polymers with Varying Hydrophilic Spacers for Non-Viral Gene Delivery," *Biomacromolecules*, **10**, 2436-2445 (2009).
293. E.W.H. Bodde, W.J.E.M. Habraken, A.G. Mikos, P.H.M. Spauwen, and J.A. Jansen, "Effect of Polymer Molecular Weight on the Bone Biological Activity of Biodegradable Polymer/Calcium Phosphate Cement Composites," *Tissue Eng. Part A*, **15**, 3183-3191 (2009).
294. W.J.E.M. Habraken, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Porcine Gelatin Microsphere/Calcium Phosphate Cement Composites: An *In Vitro* Degradation Study," *J. Biomed. Mater. Res. Part B: Appl. Biomater.*, **91B**, 555-561 (2009).
295. A. Saraf, G. Lozier, A. Haesslein, F.K. Kasper, R.M. Raphael, L.S. Baggett, and A.G. Mikos, "Fabrication of Nonwoven Coaxial Fiber Meshes by Electrospinning," *Tissue Eng. Part C: Methods*, **15**, 333-344 (2009).
296. X. Guo, H. Park, S. Young, J.D. Kretlow, J.J. van den Beucken, L.S. Baggett, Y. Tabata, F.K. Kasper, A.G. Mikos, and J.A. Jansen, "Repair of Osteochondral Defects with Biodegradable Hydrogel Composites Encapsulating Marrow Mesenchymal Stem Cells in a Rabbit Model," *Acta Biomaterialia*, **6**, 39-47 (2010).
297. A.S. Mistry, Q.P. Pham, C. Schouten, T. Yeh, E.M. Christenson, A.G. Mikos, and J.A. Jansen, "In Vivo Bone Biocompatibility and Degradation of Porous Fumarate-Based Polymer/Alumoxane Nanocomposites for Bone Tissue Engineering," *J. Biomed. Mater. Res. Part A*, **92A**, 451-462 (2010).
298. P.M. Mountziaris, S.N. Tzouanas, and A.G. Mikos, "Dose Effect of Tumor Necrosis Factor- α on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells on Biodegradable Polymeric Microfiber Scaffolds," *Biomaterials*, **31**, 1666-1675 (2010).
299. R.A. Thibault, L.S. Baggett, A.G. Mikos, and F.K. Kasper, "Osteogenic Differentiation of Mesenchymal Stem Cells on Pregenerated Extracellular Matrix Scaffolds in the Absence of Osteogenic Cell Culture Supplements," *Tissue Eng. Part A*, **16**, 431-440 (2010).
300. A.M. Martins, C.M. Alves, F.K. Kasper, A.G. Mikos, and R.L. Reis, "Responsive and *In Situ*-Forming Chitosan Scaffolds for Bone Tissue Engineering Applications: An Overview of the Last Decade," *J. Mater. Chem.*, **20**, 1638-1645 (2010).
301. S.A. Chew, M.C. Hacker, A. Saraf, R.M. Raphael, F.K. Kasper, and A.G. Mikos, "Altering Amine Basicities in Biodegradable Branched Polycationic Polymers for Nonviral Gene Delivery," *Biomacromolecules*, **11**, 600-609 (2010).
302. J.D. Kretlow, M.C. Hacker, L. Klouda, B.B. Ma, and A.G. Mikos, "Synthesis and Characterization of Dual Stimuli Responsive Macromers Based on Poly(N-Isopropylacrylamide) and Poly(Vinylphosphonic Acid)," *Biomacromolecules*, **11**, 797-805 (2010).
303. M. Shi, J.D. Kretlow, A. Nguyen, S. Young, L.S. Baggett, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Antibiotic-Releasing Porous Polymethylmethacrylate Constructs for Osseous Space Maintenance and Infection Control," *Biomaterials*, **31**, 4146-4156 (2010).
304. A. Saraf, L.S. Baggett, R.M. Raphael, F.K. Kasper, and A.G. Mikos, "Regulated Non-Viral Gene Delivery from Coaxial Electrospun Fiber Mesh Scaffolds," *J. Controlled Release*, **143**, 95-103 (2010).

305. M.W. Zhang, H. Park, X. Guo, K. Nakamura, R.M. Raphael, F.K. Kasper, A.G. Mikos, and P.A. Tsonis, "Adapting Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Pigment Epithelial Cell Encapsulation and Lens Regeneration," *Tissue Eng. Part C: Methods*, **16**, 261-267 (2010).
306. B. Sitharaman, M. van der Zande, J.S. Ananta, X. Shi, A. Veltien, X.F. Walboomers, L.J. Wilson, A.G. Mikos, A. Heerschap, and J.A. Jansen, "Magnetic Resonance Imaging Studies on Gadonanotube-Reinforced Biodegradable Polymer Nanocomposites," *J. Biomed. Mater. Res. Part A*, **93A**, 1454-1462 (2010).
307. W.J.E.M. Habraken, H.B. Liao, Z. Zhang, J.G.C. Wolke, D.W. Grijpma, A.G. Mikos, J. Feijen, and J.A. Jansen, "In Vivo Degradation of Calcium Phosphate Cement Incorporated into Biodegradable Microspheres," *Acta Biomaterialia*, **6**, 2200-2211 (2010).
308. J. Liao, X. Guo, D. Nelson, F.K. Kasper, and A.G. Mikos, "Modulation of Osteogenic Properties of Biodegradable Polymer/Extracellular Matrix Scaffolds Generated with a Flow Perfusion Bioreactor," *Acta Biomaterialia*, **6**, 2386-2393 (2010).
309. E. Burdett, F.K. Kasper, A.G. Mikos, and J.A. Ludwig, "Engineering Tumors: A Tissue Engineering Perspective in Cancer Biology," *Tissue Eng. Part B: Reviews*, **16**, 351-359 (2010).
310. X. Guo, J. Liao, H. Park, A. Saraf, R.M. Raphael, Y. Tabata, F.K. Kasper, and A.G. Mikos, "Effects of TGF- β 3 and Preculture Period of Osteogenic Cells on the Chondrogenic Differentiation of Rabbit Marrow Mesenchymal Stem Cells Encapsulated in a Bilayered Hydrogel Composite," *Acta Biomaterialia*, **6**, 2920-2931 (2010).
311. A.M. Martins, A. Saraf, R.A. Sousa, C.M. Alves, A.G. Mikos, F.K. Kasper, and R.L. Reis, "Combination of Enzymes and Flow Perfusion Conditions Improves Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured upon Starch/Poly(ϵ -Caprolactone) Fiber Meshes," *J. Biomed. Mater. Res. Part A*, **94A**, 1061-1069 (2010).
312. S.I. Ranganathan, D.M. Yoon, A.M. Henslee, M.B. Nair, C. Smid, F.K. Kasper, E. Tasciotti, A.G. Mikos, P. Decuzzi, and M. Ferrari, "Shaping the Micromechanical Behavior of Multi-Phase Composites for Bone Tissue Engineering," *Acta Biomaterialia*, **6**, 3448-3456 (2010).
313. P.M. Mountziaris, D.C. Sing, A.G. Mikos, and P.R. Kramer, "Intra-Articular Microparticles for Drug Delivery to the TMJ," *J. Dent. Res.*, **89**, 1039-1044 (2010).
314. J. Liao, X. Guo, K.J. Grande-Allen, F.K. Kasper, and A.G. Mikos, "Bioactive Polymer/Extracellular Matrix Scaffolds Fabricated with a Flow Perfusion Bioreactor for Cartilage Tissue Engineering," *Biomaterials*, **31**, 8911-8920 (2010).
315. P.P. Spicer and A.G. Mikos, "Fibrin Glue as a Drug Delivery System," *J. Controlled Release*, **148**, 49-55 (2010).
316. J.D. Kretlow, M. Shi, S. Young, P.P. Spicer, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Evaluation of Soft Tissue Coverage over Porous Polymethylmethacrylate Space Maintainers within Nonhealing Alveolar Bone Defects," *Tissue Eng. Part C: Methods*, **16**, 1427-1438 (2010).
317. K. Gkioni, S.C.G. Leeuwenburgh, T.E.L. Douglas, A.G. Mikos, and J.A. Jansen, "Mineralization of Hydrogels for Bone Regeneration," *Tissue Eng. Part B: Reviews*, **16**, 577-585 (2010).
318. J.D. Kretlow, P.P. Spicer, J.A. Jansen, C.A. Vacanti, F.K. Kasper, and A.G. Mikos, "Uncultured Marrow Mononuclear Cells Delivered within Fibrin Glue Hydrogels to Porous Scaffolds Enhance Bone Regeneration within Critical-Sized Rat Cranial Defects," *Tissue Eng. Part A*, **16**, 3555-3568 (2010).
319. C. Nguyen, S. Young, J.D. Kretlow, A.G. Mikos, and M. Wong, "Surface Characteristics of Biomaterials Used for Space Maintenance in a Mandibular Defect: A Pilot Animal Study," *J. Oral Maxillofac. Surg.*, **69**, 11-18 (2011).
320. M. van der Zande, B. Sitharaman, X.F. Walboomers, L. Tran, J.S. Ananta, A. Veltien, L.J. Wilson, J.I. Álava, A. Heerschap, A.G. Mikos, and J.A. Jansen, "In Vivo Magnetic Resonance Imaging of the Distribution Pattern of Gadonanotubes Released from a Degrading Poly(Lactic-co-Glycolic Acid) Scaffold," *Tissue Eng. Part C: Methods*, **17**, 19-26 (2011).
321. K. Kim, D. Dean, A. Lu, A.G. Mikos, and J.P. Fisher, "Early Osteogenic Signal Expression of Rat Bone Marrow Stromal Cells Is Influenced by Both Hydroxyapatite Nanoparticle Content and Initial Cell Seeding Density in Biodegradable Nanocomposite Scaffolds," *Acta Biomaterialia*, **7**, 1249-1264 (2011).

322. L. Klouda, K.R. Perkins, B.M. Watson, M.C. Hacker, S.J. Bryant, R.M. Raphael, F.K. Kasper, and A.G. Mikos, "Thermoresponsive, *In Situ* Crosslinkable Hydrogels Based on N-Isopropylacrylamide: Fabrication, Characterization and Mesenchymal Stem Cell Encapsulation," *Acta Biomaterialia*, 7, 1460-1467 (2011).
323. H. Liao, X.F. Walboomers, W.J.E.M. Habraken, Z. Zhang, Y. Li, D.W. Grijpma, A.G. Mikos, J.G.C. Wolke, and J.A. Jansen, "Injectable Calcium Phosphate Cement with PLGA, Gelatin and PTMC Microspheres in a Rabbit Femoral Defect," *Acta Biomaterialia*, 7, 1752-1759 (2011).
324. S.A. Chew, J.D. Kretlow, P.P. Spicer, A.W. Edwards, L.S. Baggett, Y. Tabata, F.K. Kasper, and A.G. Mikos, "Delivery of Plasmid DNA Encoding Bone Morphogenetic Protein-2 with a Biodegradable Branched Polycationic Polymer in a Critical-Size Rat Cranial Defect Model," *Tissue Eng. Part A*, 17, 751-763 (2011).
325. K. Kim, D. Dean, J. Wallace, R. Breithaupt, A.G. Mikos, and J.P. Fisher, "The Influence of Stereolithographic Scaffold Architecture and Composition on Osteogenic Signal Expression with Rat Bone Marrow Stromal Cells," *Biomaterials*, 32, 3750-3763 (2011).
326. P.M. Mountziaris, D.C. Sing, S.A. Chew, S.N. Tzouanas, E.D. Lehman, F.K. Kasper, and A.G. Mikos, "Controlled Release of Anti-Inflammatory siRNA from Biodegradable Polymeric Microparticles Intended for Intra-Articular Delivery to the Temporomandibular Joint," *Pharm. Res.*, 28, 1370-1384 (2011).
327. M. Shi, J.D. Kretlow, P.P. Spicer, Y. Tabata, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Antibiotic-Releasing Porous Polymethylmethacrylate/Gelatin/Antibiotic Constructs for Craniofacial Tissue Engineering," *J. Controlled Release*, 152, 196-205 (2011).
328. J.D. Kretlow and A.G. Mikos, "Bones to Biomaterials and Back Again – 20 Years of Taking Cues from Nature to Engineer Synthetic Polymer Scaffolds," *J. Biomed. Mater. Res. Part A*, 98A, 323-331 (2011).
329. M. Singh, M. Pierpoint, A.G. Mikos, and F.K. Kasper, "Chondrogenic Differentiation of Neonatal Human Dermal Fibroblasts Encapsulated in Alginate Beads with Hydrostatic Compression under Hypoxic Conditions in the Presence of Bone Morphogenetic Protein-2," *J. Biomed. Mater. Res. Part A*, 98A, 412-424 (2011).
330. J. Liao, K.E. Hammerick, G.A. Challen, M.A. Goodell, F.K. Kasper, and A.G. Mikos, "Investigating the Role of Hematopoietic Stem and Progenitor Cells in Regulating the Osteogenic Differentiation of Mesenchymal Stem Cells *In Vitro*," *J. Orthop. Res.*, 29, 1544-1553 (2011).
331. A.M. Henslee, P.P. Spicer, D.M. Yoon, M.B. Nair, V.V. Meretoja, K.E. Witherel, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Biodegradable Composite Scaffolds Incorporating an Intramedullary Rod and Delivering Bone Morphogenetic Protein-2 for Stabilization and Bone Regeneration in Segmental Long Bone Defects," *Acta Biomaterialia*, 7, 3627-3637 (2011).
332. R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Polymeric Nanofibers in Tissue Engineering," *Tissue Eng. Part B: Reviews*, 17, 349-364 (2011).
333. M.B. Nair, J.D. Kretlow, A.G. Mikos, and F.K. Kasper, "Infection and Tissue Engineering in Segmental Bone Defects – A Mini Review," *Curr. Opin. Biotechnol.*, 22, 721-725 (2011).
334. P.M. Mountziaris, P.P. Spicer, F.K. Kasper, and A.G. Mikos, "Harnessing and Modulating Inflammation in Strategies for Bone Regeneration," *Tissue Eng. Part B: Reviews*, 17, 393-402 (2011).
335. R.A. Thibault, A.G. Mikos, and F.K. Kasper, "Protein and Mineral Composition of Osteogenic Extracellular Matrix Constructs Generated with a Flow Perfusion Bioreactor," *Biomacromolecules*, 12, 4204-4212 (2011).
336. M. Bongio, J.J.J.P. van den Beucken, M.R. Nejadnik, S.C.G. Leeuwenburgh, L.A. Kinard, F.K. Kasper, A.G. Mikos, and J.A. Jansen, "Biomimetic Modification of Synthetic Hydrogels by Incorporation of Adhesive Peptides and Calcium Phosphate Nanoparticles: *In Vitro* Evaluation of Cell Behavior," *Eur. Cells Mater.*, 22, 359-376 (2011).
337. S. Srinivasan, R. Jayakumar, K.P. Chennazhi, E.J. Levorson, A.G. Mikos, and S.V. Nair, "Multiscale Fibrous Scaffolds in Regenerative Medicine," *Adv. Polym. Sci.*, 246, 1-20 (2012).
338. A.M. Martins, J.D. Kretlow, A.R. Costa-Pinto, P.B. Malafaya, E.M. Fernandes, N.M. Neves, C.M. Alves, A.G. Mikos, F.K. Kasper, and R.L. Reis, "Gradual Pore Formation in Natural Origin Scaffolds Throughout Subcutaneous Implantation," *J. Biomed. Mater. Res. Part A*, 100A, 599-612 (2012).
339. P.P. Spicer, J.D. Kretlow, A.M. Henslee, M. Shi, S. Young, N. Demian, J.A. Jansen, M.E. Wong, A.G. Mikos, and F.K. Kasper, "*In Situ* Formation of Porous Space Maintainers in a Composite Tissue Defect," *J. Biomed. Mater. Res. Part A*, 100A, 827-833 (2012).

340. P.M. Mountziaris, S.N. Tzouanas, and A.G. Mikos, "The Interplay of Bone-Like Extracellular Matrix and TNF- α Signaling on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells," *J. Biomed. Mater. Res. Part A*, 100A, 1097-1106 (2012).
341. M.R. Nejadnik, A.G. Mikos, J.A. Jansen, and S.C.G. Leeuwenburgh, "Facilitating the Mineralization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel by Incorporation of Hydroxyapatite Nanoparticles," *J. Biomed. Mater. Res. Part A*, 100A, 1316-1323 (2012).
342. P.K. Avti, S. Hu, C. Favazza, A.G. Mikos, J.A. Jansen, K.R. Shroyer, L.V. Wang, and B. Sitharaman, "Detection, Mapping, and Quantification of Single Walled Carbon Nanotubes in Histological Specimens with Photoacoustic Microscopy," *PLoS ONE*, 7(4), e35064 (2012). doi:10.1371/journal.pone.0035064.
343. D. Dean, J. Wallace, A. Siblani, M.O. Wang, K. Kim, A.G. Mikos, and J.P. Fisher, "Continuous Digital Light Processing (cDLP): Highly Accurate Additive Manufacturing of Tissue Engineered Bone Scaffolds," *Virtual Phys. Prototyp.*, 7, 13-24 (2012).
344. K. Kim, D.M. Yoon, A.G. Mikos, and F.K. Kasper, "Harnessing Cell-Biomaterial Interactions for Osteochondral Tissue Regeneration," *Adv. Biochem. Eng. Biotechnol.*, 126, 67-104 (2012).
345. C.J. Needham, A.K. Williams, S.A. Chew, F.K. Kasper, and A.G. Mikos, "Engineering a Polymeric Gene Delivery Vector Based on Poly(Ethylenimine) and Hyaluronic Acid," *Biomacromolecules*, 13, 1429-1437 (2012).
346. G. Somma, H.M. Alger, R.M. McGuire, J.D. Kretlow, F.R. Ruiz, S.A. Yatsenko, P. Stankiewicz, W. Harrison, E. Funk, A. Bergamaschi, J.S. Oghalai, A.G. Mikos, P.A. Overbeek, and F.A. Pereira, "Head Bobber: An Insertional Mutation Causes Inner Ear Defects, Hyperactive Circling, and Deafness," *J. Assoc. Res. Otolaryngol.*, 13, 335-349 (2012).
347. H. Wang, Z. Liu, D. Li, X. Guo, F.K. Kasper, C. Duan, J. Zhou, A.G. Mikos, and C. Wang, "Injectable Biodegradable Hydrogels for Embryonic Stem Cell Transplantation: Improved Cardiac Remodeling and Function of Myocardial Infarction," *J. Cell. Mol. Med.*, 16, 1310-1320 (2012).
348. L.A. Kinard, F.K. Kasper, and A.G. Mikos, "Synthesis of Oligo(Poly(Ethylene Glycol) Fumarate)," *Nature Protocols*, 7, 1219-1227 (2012).
349. V.V. Meretoja, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Chondrogenesis in Co-Cultures with Articular Chondrocytes and Mesenchymal Stem Cells," *Biomaterials*, 33, 6362-6369 (2012).
350. A.K. Ekenseair, K.W.M. Boere, S.N. Tzouanas, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Synthesis and Characterization of Thermally and Chemically Gelling Injectable Hydrogels for Tissue Engineering," *Biomacromolecules*, 13, 1908-1915 (2012).
351. A.M. Henslee, D.-H. Gwak, A.G. Mikos, and F.K. Kasper, "Development of a Biodegradable Bone Cement for Craniofacial Applications," *J. Biomed. Mater. Res. Part A*, 100A, 2252-2259 (2012).
352. T.N. Vo, F.K. Kasper, and A.G. Mikos, "Strategies for Controlled Delivery of Growth Factors and Cells for Bone Regeneration," *Adv. Drug Deliv. Rev.*, 64, 1292-1309 (2012).
353. P.M. Mountziaris, S.N. Tzouanas, D.C. Sing, P.R. Kramer, F.K. Kasper, and A.G. Mikos, "Intra-Articular Controlled Release of Anti-Inflammatory siRNA with Biodegradable Polymer Microparticles Ameliorates Temporomandibular Joint Inflammation," *Acta Biomaterialia*, 8, 3552-3560 (2012).
354. T.E.L. Douglas, P.B. Messersmith, S. Chasan, A.G. Mikos, E.L.W. de Mulder, G. Dickson, D. Schaubroeck, L. Balcaen, F. Vanhaecke, P. Dubruel, J.A. Jansen, and S.C.G. Leeuwenburgh, "Enzymatic Mineralization of Hydrogels for Bone Tissue Engineering by Incorporation of Alkaline Phosphatase," *Macromol. Biosci.*, 12, 1077-1089 (2012).
355. A.K. Ekenseair, K.W.M. Boere, S.N. Tzouanas, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Structure-Property Evaluation of Thermally and Chemically Gelling Injectable Hydrogels for Tissue Engineering," *Biomacromolecules*, 13, 2821-2830 (2012).
356. E.L.S. Fong, B.M. Watson, F.K. Kasper, and A.G. Mikos, "Building Bridges: Leveraging Interdisciplinary Collaborations in the Development of Biomaterials to Meet Clinical Needs," *Adv. Mater.*, 24, 4995-5013 (2012).
357. P.P. Spicer, J.D. Kretlow, S. Young, J.A. Jansen, F.K. Kasper, and A.G. Mikos, "Evaluation of Bone Regeneration Using the Rat Critical Size Calvarial Defect," *Nature Protocols*, 7, 1918-1929 (2012).
358. R.L. Dahlin, V.V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Design of a High-Throughput Flow Perfusion Bioreactor System for Tissue Engineering," *Tissue Eng. Part C: Methods*, 18, 817-820 (2012).
359. A. Atala, F.K. Kasper, and A.G. Mikos, "Engineering Complex Tissues," *Sci. Transl. Med.*, 4, 160rv12 (10pp) (2012).

360. A.A. Appel, J.C. Larson, S. Somo, Z. Zhong, P.P. Spicer, F.K. Kasper, A.B. Garson, A.M. Zysk, A.G. Mikos, M.A. Anastasio, and E.M. Brey, "Imaging of Poly(α -Hydroxy-Ester) Scaffolds with X-Ray Phase-Contrast Microcomputed Tomography," *Tissue Eng. Part C: Methods*, **18**, 859-865 (2012).
361. R.A. Thibault, A.G. Mikos, and F.K. Kasper, "Scaffold/Extracellular Matrix Hybrid Constructs for Bone-Tissue Engineering," *Adv. Healthcare Mater.*, **2**, 13-24 (2013).
362. E.J. Levorson, P.R. Sreerekha, K.P. Chennazhi, F.K. Kasper, S.V. Nair, and A.G. Mikos, "Fabrication and Characterization of Multiscale Electrospun Scaffolds for Cartilage Regeneration," *Biomed. Mater.*, **8**, 014103 (11pp) (2013).
363. M. Bongio, J.J.J.P. van den Beucken, M.R. Nejadnik, Z.T. Birgani, P. Habibovic, L.A. Kinard, F.K. Kasper, A.G. Mikos, S.C.G. Leeuwenburgh, and J.A. Jansen, "Subcutaneous Tissue Response and Osteogenic Performance of Calcium Phosphate Nanoparticle-Enriched Hydrogels in the Tibial Medullary Cavity of Guinea Pigs," *Acta Biomaterialia*, **9**, 5464-5474 (2013).
364. A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Perspectives on the Interface of Drug Delivery and Tissue Engineering," *Adv. Drug Deliv. Rev.*, **65**, 89-92 (2013).
365. V.V. Meretoja, R.L. Dahlin, S. Wright, F.K. Kasper, and A.G. Mikos, "The Effect of Hypoxia on the Chondrogenic Differentiation of Co-Cultured Articular Chondrocytes and Mesenchymal Stem Cells in Scaffolds," *Biomaterials*, **34**, 4266-4273 (2013).
366. R.A. Thibault, A.G. Mikos, and F.K. Kasper, "Osteogenic Differentiation of Mesenchymal Stem Cells on Demineralized and Devitalized Biodegradable Polymer and Extracellular Matrix Hybrid Constructs," *J. Biomed. Mater. Res. Part A*, **101A**, 1225-1236 (2013).
367. G. Lalwani, A.M. Henslee, B. Farshid, L. Lin, F.K. Kasper, Y.-X. Qin, A.G. Mikos, and B. Sitharaman, "Two-Dimensional Nanostructure-Reinforced Biodegradable Polymeric Nanocomposites for Bone Tissue Engineering," *Biomacromolecules*, **14**, 900-909 (2013).
368. K. Kim, J. Lam, S. Lu, P.P. Spicer, A. Lueckgen, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Osteochondral Tissue Regeneration Using a Bilayered Composite Hydrogel with Modulating Dual Growth Factor Release Kinetics in a Rabbit Model," *J. Controlled Release*, **168**, 166-178 (2013).
369. E.L.S. Fong, S.-E. Lamhamedi-Cherradi, E. Burdett, V. Ramamoorthy, A.J. Lazar, F.K. Kasper, M.C. Farach-Carson, D. Vishwamitra, E.G. Demicco, B.A. Menegaz, H.M. Amin, A.G. Mikos, and J.A. Ludwig, "Modeling Ewing Sarcoma Tumors *In Vitro* with 3D Scaffolds," *Proceed. Natl. Acad. Sci. USA*, **110**, 6500-6505 (2013).
370. L. Wang, D.M. Yoon, P.P. Spicer, A.M. Henslee, D.W. Scott, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Characterization of Porous Polymethylmethacrylate Space Maintainers for Craniofacial Reconstruction," *J. Biomed. Mater. Res. Part B: Appl. Biomater.*, **101B**, 813-825 (2013).
371. J.H. Hui, X. Ren, M.H. Afizah, K.S. Chian, and A.G. Mikos, "Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Enhances Osteochondral Repair in Porcine Femoral Condyle Defects," *Clin. Orthop. Rel. Res.*, **471**, 1174-1185 (2013).
372. M. Bongio, M.R. Nejadnik, Z.T. Birgani, P. Habibovic, L.A. Kinard, F.K. Kasper, A.G. Mikos, J.A. Jansen, S.C.G. Leeuwenburgh, and J.J.J.P. van den Beucken, "*In Vitro* and *In Vivo* Enzyme-Mediated Biomineralization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Macromol. Biosci.*, **13**, 777-788 (2013).
373. S.R. Shah, A.M. Tatara, R.N. D'Souza, A.G. Mikos, and F.K. Kasper, "Evolving Strategies for Preventing Biofilm on Implantable Materials," *Materials Today*, **16**, 177-182 (2013).
374. C.T. Lim, X. Ren, M.H. Afizah, S. Tarigan-Panjaitan, Z. Yang, Y. Wu, K.S. Chian, A.G. Mikos, and J.H. Hui, "Repair of Osteochondral Defects with Rehydrated Freeze-Dried Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Seeded with Bone Marrow Mesenchymal Stem Cells in a Porcine Model," *Tissue Eng. Part A*, **19**, 1852-1861 (2013).
375. R.L. Dahlin, V.V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Hypoxia and Flow Perfusion Modulate Proliferation and Gene Expression of Articular Chondrocytes on Porous Scaffolds," *AIChE J.*, **59**, 3158-3166 (2013).
376. G. Lalwani, A.M. Henslee, B. Farshid, P. Parmar, L. Lin, Y.-X. Qin, F.K. Kasper, A.G. Mikos, and B. Sitharaman, "Tungsten Disulfide Nanotubes Reinforced Biodegradable Polymers for Bone Tissue Engineering," *Acta Biomaterialia*, **9**, 8365-8373 (2013).
377. L.A. Kinard, C.-Y. Chu, Y. Tabata, F.K. Kasper, and A.G. Mikos, "Bone Morphogenetic Protein-2 Release from Composite Hydrogels of Oligo(Poly(Ethylene Glycol) Fumarate) and Gelatin," *Pharm. Res.*, **30**, 2332-2343 (2013).

378. P.M. Mountziaris, E.D. Lehman, I. Mountziaris, D.C. Sing, F.K. Kasper, and A.G. Mikos, "Effect of Temporally Patterned TNF- α Delivery on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Polymer Scaffolds," *J. Biomater. Sci., Polym. Ed.*, **24**, 1794-1813 (2013).
379. M. Bongio, M.R. Nejadnik, F.K. Kasper, A.G. Mikos, J.A. Jansen, S.C.G. Leeuwenburgh, and J.J.J.P. van den Beucken, "Development of an *In Vitro* Confinement Test to Predict the Clinical Handling of Polymer-Based Injectable Bone Substitutes," *Polym. Test.*, **32**, 1379-1384 (2013).
380. P.P. Spicer, S.R. Shah, A.M. Henslee, B.M. Watson, L.A. Kinard, J.D. Kretlow, K. Bevil, L. Kattchee, G.N. Bennett, N. Demian, K. Mende, C.K. Murray, J.A. Jansen, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Evaluation of Antibiotic Releasing Porous Polymethylmethacrylate Space Maintainers in an Infected Composite Tissue Defect Model," *Acta Biomaterialia*, **9**, 8832-8839 (2013).
381. J.E. Trachtenberg, P.M. Mountziaris, F.K. Kasper, and A.G. Mikos, "Fiber-Based Composite Tissue Engineering Scaffolds for Drug Delivery," *Israel J. Chem.*, **53**, 646-654 (2013).
382. E.J. Rivera, L.A. Tran, M. Hernandez-Rivera, D. Yoon, A.G. Mikos, I.A. Rusakova, B.Y. Cheong, M.G. Cabreira-Hansen, J.T. Willerson, E.C. Perin, and L.J. Wilson, "Bismuth@US-Tubes as a Potential Contrast Agent for X-Ray Imaging Applications," *J. Mater. Chem. B*, **1**, 4792-4800 (2013).
383. M.R. Nejadnik, X. Yang, T. Mimura, Z. Tahmasebi Birgani, P. Habibovic, K. Itatani, J.A. Jansen, J. Hilborn, D.A. Ossipov, A.G. Mikos, and S.C.G. Leeuwenburgh, "Calcium-Mediated Secondary Cross-Linking of Bisphosphonated Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Macromol. Biosci.*, **13**, 1308-1313 (2013).
384. J.G. Gershovich, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Osteogenesis in Cocultures with Human Mesenchymal Stem Cells and Endothelial Cells on Polymeric Microfiber Scaffolds," *Tissue Eng. Part A*, **19**, 2565-2576 (2013).
385. S.R. Shah, F.K. Kasper, and A.G. Mikos, "Perspectives on the Prevention and Treatment of Infection for Orthopedic Tissue Engineering Applications," *Chin. Sci. Bull.*, **58**, 4342-4348 (2013).
386. R.L. Dahlin, M. Ni, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "TGF- β 3-Induced Chondrogenesis in Co-Cultures of Chondrocytes and Mesenchymal Stem Cells on Biodegradable Scaffolds," *Biomaterials*, **35**, 123-132 (2014).
387. C.J. Needham, S.R. Shah, P.M. Mountziaris, F.K. Kasper, and A.G. Mikos, "Modulation of Polyplex Release from Biodegradable Microparticles through Poly(Ethylenimine) Modification and Varying Loading Concentration," *Pharm. Res.*, **31**, 77-85 (2014).
388. C.G. Ambrose, T.A. Clyburn, J. Mika, G.R. Gogola, H.B. Kaplan, A. Wanger, and A.G. Mikos, "Evaluation of Antibiotic-Impregnated Microspheres for the Prevention of Implant-Associated Orthopaedic Infections," *J. Bone Joint Surg.*, **96**, 128-134 (2014).
389. E.L.S. Fong, M. Santoro, M.C. Farach-Carson, F.K. Kasper, and A.G. Mikos, "Tissue Engineering Perfusable Cancer Models," *Curr. Opin. Chem. Eng.*, **3**, 112-117 (2014).
390. T.N. Vo, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Synthesis, Physicochemical Characterization, and Cytocompatibility of Bioresorbable, Dual-Gelling Injectable Hydrogels," *Biomacromolecules*, **15**, 132-142 (2014).
391. J. Lam, S. Lu, V.V. Meretoja, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Generation of Osteochondral Tissue Constructs with Chondrogenically and Osteogenically Predifferentiated Mesenchymal Stem Cells Encapsulated in Bilayered Hydrogels," *Acta Biomaterialia*, **10**, 1112-1123 (2014).
392. E.J. Lee, J.J. Tabor, and A.G. Mikos, "Leveraging Synthetic Biology for Tissue Engineering Applications," *Inflamm. Regener.*, **34**, 15-22 (2014).
393. J. Ma, F. Yang, S.K. Both, M. Kersten-Niessen, M. Bongio, J. Pan, F.-Z. Cui, F.K. Kasper, A.G. Mikos, J.A. Jansen, and J.J.J.P. van den Beucken, "Comparison of Cell-Loading Methods in Hydrogel Systems," *J. Biomed. Mater. Res. Part A*, **102A**, 935-946 (2014).
394. E.J. Lee, F.K. Kasper, and A.G. Mikos, "Biomaterials for Tissue Engineering," *Ann. Biomed. Eng.*, **42**, 323-337 (2014).
395. B.M. Watson, F.K. Kasper, and A.G. Mikos, "Phosphorous-Containing Polymers for Regenerative Medicine," *Biomed. Mater.*, **9**, 025014 (10pp) (2014).
396. S.N. Tzouanas, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Mesenchymal Stem Cell and Gelatin Microparticle Encapsulation in Thermally and Chemically Gelling Injectable Hydrogels for Tissue Engineering," *J. Biomed. Mater. Res. Part A*, **102A**, 1222-1230 (2014).

397. E.J. Levorson, M. Santoro, F.K. Kasper, and A.G. Mikos, "Direct and Indirect Co-Culture of Chondrocytes and Mesenchymal Stem Cells for the Generation of Polymer/Extracellular Matrix Hybrid Constructs," *Acta Biomaterialia*, 10, 1824-1835 (2014).
398. E.J. Levorson, P.M. Mountziaris, O. Hu, F.K. Kasper, and A.G. Mikos, "Cell-Derived Polymer/Extracellular Matrix Composite Scaffolds for Cartilage Regeneration, Part 1: Investigation of Cocultures and Seeding Densities for Improved Extracellular Matrix Deposition," *Tissue Eng. Part C: Methods*, 20, 340-357 (2014).
399. E.J. Levorson, O. Hu, P.M. Mountziaris, F.K. Kasper, and A.G. Mikos, "Cell-Derived Polymer/Extracellular Matrix Composite Scaffolds for Cartilage Regeneration, Part 2: Construct Devitalization and Determination of Chondroinductive Capacity," *Tissue Eng. Part C: Methods*, 20, 358-372 (2014).
400. A.M. Henslee, P.P. Spicer, S.R. Shah, A.M. Tataru, F.K. Kasper, A.G. Mikos, and M.E. Wong, "Use of Porous Space Maintainers in Staged Mandibular Reconstruction," *Oral Maxillofac. Surg. Clin. North Am.*, 26, 143-149 (2014).
401. V.V. Meretoja, R.L. Dahlin, S. Wright, F.K. Kasper, and A.G. Mikos, "Articular Chondrocyte Redifferentiation in 3D Co-Cultures with Mesenchymal Stem Cells," *Tissue Eng. Part C: Methods*, 20, 514-523 (2014).
402. T.N. Vo, J.E. Trachtenberg, and A.G. Mikos, "In Vitro Techniques for Biomaterial Evaluation in Bone and Cartilage Tissue Engineering," *Regener. Med., J. Japan. Soc. Regener. Med.*, 13, 125-149 (2014).
403. L.A. Kinard, R.L. Dahlin, A.M. Henslee, P.P. Spicer, C.-Y. Chu, Y. Tabata, J.J.J.P. van den Beucken, J.A. Jansen, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Tissue Response to Composite Hydrogels for Vertical Bone Augmentation in the Rat," *J. Biomed. Mater. Res. Part A*, 102A, 2079-2088 (2014).
404. B.M. Watson, F.K. Kasper, P.S. Engel, and A.G. Mikos, "Synthesis and Characterization of Injectable, Biodegradable, Phosphate-Containing, Chemically Cross-Linkable, Thermoresponsive Macromers for Bone Tissue Engineering," *Biomacromolecules*, 15, 1788-1796 (2014).
405. R.L. Dahlin, L.A. Kinard, J. Lam, C.J. Needham, S. Lu, F.K. Kasper, and A.G. Mikos, "Articular Chondrocytes and Mesenchymal Stem Cells Seeded on Biodegradable Scaffolds for the Repair of Cartilage in a Rat Osteochondral Defect Model," *Biomaterials*, 35, 7460-7469 (2014).
406. R.L. Dahlin, J.G. Gershovich, F.K. Kasper, and A.G. Mikos, "Flow Perfusion Co-Culture of Human Mesenchymal Stem Cells and Endothelial Cells on Biodegradable Polymer Scaffolds," *Ann. Biomed. Eng.*, 42, 1381-1390 (2014).
407. E.L.S. Fong, M. Martinez, J. Yang, A.G. Mikos, N.M. Navone, D.A. Harrington, and M.C. Farach-Carson, "Hydrogel-Based 3D Model of Patient-Derived Prostate Xenograft Tumors Suitable for Drug Screening," *Mol. Pharm.*, 11, 2040-2050 (2014).
408. M. Santoro, A.M. Tataru, and A.G. Mikos, "Gelatin Carriers for Drug and Cell Delivery in Tissue Engineering," *J. Controlled Release*, 190, 210-218 (2014).
409. J. Lam, K. Kim, S. Lu, Y. Tabata, D.W. Scott, A.G. Mikos, and F.K. Kasper, "A Factorial Analysis of the Combined Effects of Hydrogel Fabrication Parameters on the In Vitro Swelling and Degradation of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *J. Biomed. Mater. Res. Part A*, 102A, 3477-3487 (2014).
410. J. Lam, S. Lu, E.J. Lee, J.E. Trachtenberg, V.V. Meretoja, R.L. Dahlin, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Osteochondral Defect Repair Using Bilayered Hydrogels Encapsulating Both Chondrogenically and Osteogenically Pre-Differentiated Mesenchymal Stem Cells in a Rabbit Model," *Osteoarthritis Cartilage*, 22, 1291-1300 (2014).
411. S. Lu, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered, Biodegradable Hydrogel Composites for Spatially-Guided Osteochondral Tissue Repair," *Biomaterials*, 35, 8829-8839 (2014).
412. C.J. Needham, S.R. Shah, R.L. Dahlin, L.A. Kinard, J. Lam, B.M. Watson, S. Lu, F.K. Kasper, and A.G. Mikos, "Osteochondral Tissue Regeneration Through Polymeric Delivery of DNA Encoding for the SOX Trio and RUNX2," *Acta Biomaterialia*, 10, 4103-4112 (2014).
413. L.A. Kinard, R.L. Dahlin, J. Lam, S. Lu, E.J. Lee, F.K. Kasper, and A.G. Mikos, "Synthetic Biodegradable Hydrogel Delivery of Demineralized Bone Matrix for Bone Augmentation in a Rat Model," *Acta Biomaterialia*, 10, 4574-4582 (2014).

414. J.E. Trachtenberg, P.M. Mountziaris, J.S. Miller, M. Wettergreen, F.K. Kasper, and A.G. Mikos, "Open-Source Three-Dimensional Printing of Biodegradable Polymer Scaffolds for Tissue Engineering," *J. Biomed. Mater. Res. Part A*, 102A, 4326-4335 (2014).
415. A.W.G. Nijhuis, S. Takemoto, M.R. Nejadnik, Y. Li, X. Yang, D.A. Ossipov, J. Hilborn, A.G. Mikos, M. Yoshinari, J.A. Jansen, and S.C.G. Leeuwenburgh, "Rapid Screening of Mineralization Capacity of Biomaterials by Means of Quantification of Enzymatically Deposited Calcium Phosphate," *Tissue Eng. Part C: Methods*, 20, 838-850 (2014).
416. S.R. Shah, A.M. Henslee, P.P. Spicer, S. Yokota, S. Petrichenko, S. Allahabadi, G.N. Bennett, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Effects of Antibiotic Physicochemical Properties on their Release Kinetics from Biodegradable Polymer Microparticles," *Pharm. Res.*, 31, 3379-3389 (2014).
417. R.L. Dahlin, V.V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Chondrogenic Phenotype of Articular Chondrocytes in Monoculture and Co-Culture with Mesenchymal Stem Cells in Flow Perfusion," *Tissue Eng. Part A*, 20, 2883-2891 (2014).
418. A.M. Tataru, M.E. Wong, and A.G. Mikos, "In Vivo Bioreactors for Mandibular Reconstruction," *J. Dent. Res.*, 93, 1196-1202 (2014).
419. S.-E. Lamhamedi-Cherradi, M. Santoro, V. Ramammoorthy, B.A. Menegaz, G. Bartholomeusz, L.R. Iles, H.M. Amin, A.J. Livingston, A.G. Mikos, and J.A. Ludwig, "3D Tissue-Engineered Model of Ewing's Sarcoma," *Adv. Drug Deliv. Rev.*, 79-80, 155-171 (2014).
420. K.M. Hubka, R.L. Dahlin, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "Enhancing Chondrogenic Phenotype for Cartilage Tissue Engineering: Monoculture and Coculture of Articular Chondrocytes and Mesenchymal Stem Cells," *Tissue Eng. Part B: Reviews*, 20, 641-654 (2014).
421. L. Wang, S. Lu, J. Lam, F.K. Kasper, and A.G. Mikos, "Fabrication of Cell-Laden Macroporous Biodegradable Hydrogels with Tunable Porosities and Pore Sizes," *Tissue Eng. Part C: Methods*, 21, 263-273 (2015).
422. A.M. Henslee, S.R. Shah, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Degradable, Antibiotic Releasing Poly(Propylene Fumarate)-Based Constructs for Craniofacial Space Maintenance Applications," *J. Biomed. Mater. Res. Part A*, 103A, 1485-1497 (2015).
423. S.R. Shah, C.A. Werlang, F.K. Kasper, and A.G. Mikos, "Novel Applications of Statins for Bone Regeneration," *Natl. Sci. Rev.*, 2, 85-99 (2015).
424. A.M. Henslee, D.M. Yoon, B.Y. Lu, J. Yu, A.A. Arango, L.P. Marruffo, L. Seng, T.D. Anver, H. Ather, M.B. Nair, S.O. Piper, N. Demian, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "Characterization of an Injectable, Degradable Polymer for Mechanical Stabilization of Mandibular Fractures," *J. Biomed. Mater. Res. Part B: Appl. Biomater.*, 103B, 529-538 (2015).
425. J.E. Trachtenberg, T.N. Vo, and A.G. Mikos, "Pre-Clinical Characterization of Tissue Engineering Constructs for Bone and Cartilage Regeneration," *Ann. Biomed. Eng.*, 43, 681-696 (2015).
426. T.N. Vo, A.K. Ekenseair, P.P. Spicer, B.M. Watson, S.N. Tzouanas, T.T. Roh, and A.G. Mikos, "In Vitro and In Vivo Evaluation of Self-Mineralization and Biocompatibility of Injectable, Dual-Gelling Hydrogels for Bone Tissue Engineering," *J. Controlled Release*, 205, 25-34 (2015).
427. A.M. Tataru, J.D. Kretlow, P.P. Spicer, S. Lu, J. Lam, W. Liu, Y. Cao, G. Liu, J.D. Jackson, J.J. Yoo, A. Atala, J.J.J.P. van den Beucken, J.A. Jansen, F.K. Kasper, T. Ho, N. Demian, M.J. Miller, M.E. Wong, and A.G. Mikos, "Autologously Generated Tissue-Engineered Bone Flaps for Reconstruction of Large Mandibular Defects in an Ovine Model," *Tissue Eng. Part A*, 21, 1520-1528 (2015).
428. A.M. Tataru, S.R. Shah, M. Sotoudeh, A.M. Henslee, M.E. Wong, A. Ratcliffe, F.K. Kasper, and A.G. Mikos, "Effects of Electron Beam Sterilization on Mechanical Properties of a Porous Polymethylmethacrylate Space Maintenance Device," *J. Med. Dev.*, 9, 024501-1-024501-4 (2015).
429. J. Lam, S. Lu, F.K. Kasper, and A.G. Mikos, "Strategies for Controlled Delivery of Biologics for Cartilage Repair," *Adv. Drug Deliv. Rev.*, 84, 123-134 (2015).
430. B.M. Watson, T.N. Vo, A.M. Tataru, S.R. Shah, D.W. Scott, P.S. Engel, and A.G. Mikos, "Biodegradable, Phosphate-Containing, Dual-Gelling Macromers for Cellular Delivery in Bone Tissue Engineering," *Biomaterials*, 67, 286-296 (2015).
431. A.M. Tataru, S.R. Shah, C.E. Livingston, and A.G. Mikos, "Infected Animal Models for Tissue Engineering," *Methods*, 84, 17-24 (2015).
432. M. Santoro, S.-E. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Flow Perfusion Effects on Three-Dimensional Culture and Drug Sensitivity of Ewing Sarcoma," *Proceed. Natl. Acad. Sci. USA*, 112, 10304-10309 (2015).
433. S.K. Madhurakkat Perikamana, J. Lee, Y.B. Lee, Y.M. Shin, E.J. Lee, A.G. Mikos, and H. Shin,

- "Materials from Mussel-Inspired Chemistry for Cell and Tissue Engineering Applications," *Biomacromolecules*, **16**, 2541-2555 (2015).
434. B.N. Sathy, U. Mony, D. Menon, V.K. Baskaran, A.G. Mikos, and S. Nair, "Bone Tissue Engineering with Multilayered Scaffolds - Part I: An Approach for Vascularizing Engineered Constructs *In Vivo*," *Tissue Eng. Part A*, **21**, 2480-2494 (2015).
 435. B.N. Sathy, B.M. Watson, L.A. Kinard, P.P. Spicer, R.L. Dahlin, A.G. Mikos, and S. Nair, "Bone Tissue Engineering with Multilayered Scaffolds - Part II: Combining Vascularization with Bone Formation in Critical-Sized Bone Defect," *Tissue Eng. Part A*, **21**, 2495-2503 (2015).
 436. B.M. Watson, T.N. Vo, P.S. Engel, and A.G. Mikos, "Biodegradable, *In Situ*-Forming Cell-Laden Hydrogel Composites of Hydroxyapatite Nanoparticles for Bone Regeneration," *Ind. Eng. Chem. Res.*, **54**, 10206-10211 (2015).
 437. E.R. Molina, B.T. Smith, S.R. Shah, H. Shin, and A.G. Mikos, "Immunomodulatory Properties of Stem Cells and Bioactive Molecules for Tissue Engineering," *J. Controlled Release*, **219**, 107-118 (2015).
 438. S. Lu, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J.J.J.P. van den Beucken, Y. Tabata, F.K. Kasper, D.W. Scott, M.E. Wong, J.A. Jansen, and A.G. Mikos, "Correlation between the Repair of Cartilage and Subchondral Bone in an Osteochondral Defect Using Bilayered, Biodegradable Hydrogel Composites," *Tissue Eng. Part C: Methods*, **21**, 1216-1225 (2015).
 439. B.T. Smith, J. Shum, M.E. Wong, A.G. Mikos, and S. Young, "Bone Tissue Engineering Challenges in Oral and Maxillofacial Surgery," *Adv. Exp. Med. Biol.*, **881**, 57-78 (2015).
 440. E.L.S. Fong, X. Wan, J. Yang, M. Morgado, A.G. Mikos, D.A. Harrington, N.M. Navone, and M.C. Farach-Carson, "A 3D *In Vitro* Model of Patient-Derived Prostate Cancer Xenograft for Controlled Interrogation of *In Vivo* Tumor-Stromal Interactions," *Biomaterials*, **77**, 164-172 (2016).
 441. P.M. Mountziaris, S.R. Shah, J. Lam, G.N. Bennett, and A.G. Mikos, "A Rapid, Flexible Method for Incorporating Controlled Antibiotic Release into Porous Polymethylmethacrylate Space Maintainers for Craniofacial Reconstruction," *Biomater. Sci.*, **4**, 121-129 (2016).
 442. A.M. Tataru and A.G. Mikos, "2015 Lifetime Achievement Award of Tissue Engineering and Regenerative Medicine International Society-Americas: Antonios G. Mikos, PhD," *Tissue Eng. Part A*, **22**, 1-2 (2016).
 443. T.N. Vo, S.R. Shah, S. Lu, A.M. Tataru, E.J. Lee, T.T. Roh, Y. Tabata, and A.G. Mikos, "Injectable Dual-Gelling Cell-Laden Composite Hydrogels for Bone Tissue Engineering," *Biomaterials*, **83**, 1-11 (2016).
 444. J. Lam, E.C. Clark, E.L.S. Fong, E.J. Lee, S. Lu, Y. Tabata, and A.G. Mikos, "Evaluation of Cell-Laden Polyelectrolyte Hydrogels Incorporating Poly(L-Lysine) for Applications in Cartilage Tissue Engineering," *Biomaterials*, **83**, 332-346 (2016).
 445. J. Lam, E.C. Clark, E.L.S. Fong, E.J. Lee, S. Lu, Y. Tabata, and A.G. Mikos, "Data Describing the Swelling Behavior and Cytocompatibility of Biodegradable Polyelectrolyte Hydrogels Incorporating Poly(L-Lysine) for Applications in Cartilage Tissue Engineering," *Data-in-Brief*, **7**, 614-619 (2016).
 446. S.R. Shah, A.M. Tataru, J. Lam, S. Lu, D.W. Scott, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Polymer-Based Local Antibiotic Delivery for Prevention of Polymicrobial Infection in Contaminated Mandibular Implants," *ACS Biomater. Sci. Eng.*, **2**, 558-566 (2016).
 447. S. Lu, E.J. Lee, J. Lam, Y. Tabata, and A.G. Mikos, "Evaluation of Gelatin Microparticles as Adherent-Substrates for Mesenchymal Stem Cells in a Hydrogel Composite," *Ann. Biomed. Eng.*, **44**, 1894-1907 (2016).
 448. T.N. Vo, Y. Tabata, and A.G. Mikos, "Effects of Cellular Parameters on the *In Vitro* Osteogenic Potential of Dual-Gelling Mesenchymal Stem Cell-Laden Hydrogels," *J. Biomater. Sci., Polym. Ed.*, **27**, 1277-1290 (2016).
 449. A.M. Tataru, A.G. Mikos, and D.P. Kontoyiannis, "Factors Affecting Patient Outcome in Primary Cutaneous Aspergillosis," *Medicine*, **95**, e3747 (2016).
 450. A.M. Tataru and A.G. Mikos, "Tissue Engineering in Orthopaedics," *J. Bone Joint Surg.*, **98**, 1132-1139 (2016).
 451. S.R. Shah, S. Young, J.L. Goldman, J.A. Jansen, M.E. Wong, and A.G. Mikos, "A Composite Critical-Size Rabbit Mandibular Defect for Evaluation of Craniofacial Tissue Regeneration," *Nature Protocols*, **11**, 1989-2009 (2016).
 452. S.-E. Lamhamedi-Cherradi, B.A. Menegaz, V. Ramamoorthy, D. Vishwamitra, Y. Wang, R.L. Maywald, A.S. Buford, I. Fokt, S. Skora, J. Wang, A. Naing, A.J. Lazar, E.M. Rohren, N.C. Daw, V.

- Subbiah, R.S. Benjamin, R. Ratan, W. Priebe, A.G. Mikos, H.M. Amin, and J.A. Ludwig, "IGF-1R and mTOR Blockade: Novel Resistance Mechanisms and Synergistic Drug Combinations for Ewing Sarcoma," *J. Natl. Cancer Inst.*, 108, djw182 (2016).
453. J.E. Trachtenberg, J.K. Placone, B.T. Smith, C.M. Piard, M. Santoro, D.W. Scott, J.P. Fisher, and A.G. Mikos, "Extrusion-Based 3D Printing of Poly(Propylene Fumarate) in a Full-Factorial Design," *ACS Biomater. Sci. Eng.*, 2, 1771-1780 (2016).
 454. A.M. Tatara, S.R. Shah, N. Demian, T. Ho, J. Shum, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Reconstruction of Large Mandibular Defects Using Autologous Tissues Generated from *In Vivo* Bioreactors," *Acta Biomaterialia*, 45, 72-84 (2016).
 455. M. Santoro, S.R. Shah, J.L. Walker, and A.G. Mikos, "Poly(Lactic Acid) Nanofibrous Scaffolds for Tissue Engineering," *Adv. Drug Deliv. Rev.*, 107, 206-212 (2016).
 456. S.I. Simon, A.G. Mikos, and L.V. McIntire, "Fond Memories of our Mentor J. David Hellums, Annals of Biomedical Engineering," *Ann. Biomed. Eng.*, 44, 3157 (2016).
 457. T.N. Vo, A.M. Tatara, M. Santoro, J.J.J.P. van den Beucken, S.C.G. Leeuwenburgh, J.A. Jansen, and A.G. Mikos, "Acellular Mineral Deposition within Injectable, Dual-Gelling Hydrogels for Bone Tissue Engineering," *J. Biomed. Mater. Res. Part A*, 105A, 110-117 (2017).
 458. M. Santoro, B.A. Menegaz, S.E. Lamhamedi-Cherradi, E.R. Molina, D. Wu, W. Priebe, J.A. Ludwig, and A.G. Mikos, "Modeling Stroma-Induced Drug Resistance in a Tissue-Engineered Tumor Model of Ewing Sarcoma," *Tissue Eng. Part A*, 23, 80-89 (2017).
 459. S.R. Shah, B.T. Smith, A.M. Tatara, E.R. Molina, E.J. Lee, T.C. Piepergerdes, B.A. Uhrig, R.E. Guldberg, G.N. Bennett, J.C. Wenke, and A.G. Mikos, "Effects of Local Antibiotic Delivery from Porous Space Maintainers on Infection Clearance and Induction of an Osteogenic Membrane in an Infected Bone Defect," *Tissue Eng. Part A*, 23, 91-100 (2017).
 460. B.T. Smith, M. Santoro, E.C. Grosfeld, S.R. Shah, J.J.J.P. van den Beucken, J.A. Jansen, and A.G. Mikos, "Incorporation of Fast Dissolving Glucose Porogens into an Injectable Calcium Phosphate Cement for Bone Tissue Engineering," *Acta Biomaterialia*, 50, 68-77 (2017).
 461. J.E. Trachtenberg, J.K. Placone, B.T. Smith, J.P. Fisher, and A.G. Mikos, "Extrusion-Based 3D Printing of Poly(Propylene Fumarate) Scaffolds with Hydroxyapatite Gradients," *J. Biomater. Sci., Polym. Ed.*, 28, 532-554 (2017).
 462. T. Guo, T.R. Holzberg, C.G. Lim, F. Gao, A. Gargava, J.E. Trachtenberg, A.G. Mikos, and J.P. Fisher, "3D Printing PLGA: A Quantitative Examination of the Effects of Polymer Composition and Printing Parameters on Print Resolution," *Biofabrication*, 9, 024101 (11pp) (2017).
 463. Y. Du, H. Liu, Q. Yang, S. Wang, J. Wang, J. Ma, I. Noh, A.G. Mikos, and S. Zhang, "Selective Laser Sintering Scaffold with Hierarchical Architecture and Gradient Composition for Osteochondral Repair in Rabbits," *Biomaterials*, 137, 37-48 (2017).
 464. A.M. Tatara, E. Watson, T. Satish, D.W. Scott, D.P. Kontoyiannis, P.S. Engel, and A.G. Mikos, "Synthesis and Characterization of Diol-Based Unsaturated Polyesters: Poly(Diol Fumarate) and Poly(Diol Fumarate-co-Succinate)," *Biomacromolecules*, 18, 1724-1735 (2017).
 465. S. Wang, Y. Yang, Z. Zhao, X. Wang, A.G. Mikos, Z. Qiu, T. Song, X. Sun, L. Zhao, C. Zhang, and F. Cui, "Mineralized Collagen-Based Composite Bone Materials for Cranial Bone Regeneration in Developing Sheep," *ACS Biomater. Sci. Eng.*, 3, 1092-1099 (2017).
 466. L.G. Bracaglia, B.T. Smith, E. Watson, N. Arumugasaamy, A.G. Mikos, and J.P. Fisher, "3D Printing for the Design and Fabrication of Polymer-Based Gradient Scaffolds," *Acta Biomaterialia*, 56, 3-13 (2017).
 467. E.J. Lee, B.K. Huh, S.N. Kim, J.Y. Lee, C.G. Park, A.G. Mikos, and Y.B. Choy, "Application of Materials as Medical Devices with Localized Drug Delivery Capabilities for Enhanced Wound Repair," *Progr. Mater. Sci.*, 89, 392-410 (2017).
 468. S.T. Heo, A.M. Tatara, C. Jiménez-Ortigosa, Y. Jiang, R.E. Lewis, J. Tarrand, F. Tverdek, N.D. Albert, P.E. Verweij, J.F. Meis, A.G. Mikos, D.S. Perlin, and D.P. Kontoyiannis, "Changes in *In Vitro* Susceptibility Patterns of *Aspergillus* to Triazoles and Correlation with Aspergillosis Outcome in a Tertiary Care Cancer Center, 1999-2015," *Clin. Infect. Dis.*, 65, 216-225 (2017).
 469. E. Watson, A.M. Tatara, D.P. Kontoyiannis, and A.G. Mikos, "Inherently Antimicrobial Biodegradable Polymers in Tissue Engineering," *ACS Biomater. Sci. Eng.*, 3, 1207-1220 (2017).
 470. I. Lodoso-Torrecilla, N.A.P. van Gestel, L.A. Díaz-Gómez, E.C. Grosfeld, K. Laperre, J.G.C. Wolke, B.T. Smith, J.J. Arts, A.G. Mikos, J.A. Jansen, S. Hofmann, and J.J.J.P. van den Beucken,

- "Multimodal Pore Formation in Calcium Phosphate Cements," *J. Biomed. Mater. Res. Part A*, 106A, 500-509 (2018).
471. J. Yang, G.L. Koons, G. Cheng, L. Zhao, A.G. Mikos, and F. Cui, "A Review on the Exploitation of Biodegradable Magnesium-Based Composites for Medical Applications," *Biomed. Mater.*, 13, 022001 (8pp) (2018).
 472. J.E. Trachtenberg, M. Santoro, C. Williams III, C.M. Piard, B.T. Smith, J.K. Placone, B.A. Menegaz, E.R. Molina, S.-E. Lamhamedi-Cherradi, J.A. Ludwig, V.I. Sikavitsas, J.P. Fisher, and A.G. Mikos, "Effects of Shear Stress Gradients on Ewing Sarcoma Cells Using 3D Printed Scaffolds and Flow Perfusion," *ACS Biomater. Sci. Eng.*, 4, 347-356 (2018).
 473. L.K. Chim and A.G. Mikos, "Biomechanical Forces in Tissue Engineered Tumor Models," *Curr. Opin. Biomed. Eng.*, 6, 42-50 (2018).
 474. A.M. Tataara, A.J. Rozich, P.D. Kontoyiannis, E. Watson, N.D. Albert, G.R. Bennett, and A.G. Mikos, "Econazole-Releasing Porous Space Maintainers for Fungal Periprosthetic Joint Infection," *J. Mater. Sci. Mater. Med.*, 29, 70 (2018).
 475. J. Zhou, X. Yang, W. Liu, C. Wang, Y. Shen, F. Zhang, H. Zhu, H. Sun, J. Chen, J. Lam, A.G. Mikos, and C. Wang, "Injectable OPF/Graphene Oxide Hydrogels Provide Mechanical Support and Enhance Cell Electrical Signaling after Implantation into Myocardial Infarct," *Theranostics*, 8, 3317-3330 (2018).
 476. A.M. Tataara, D.P. Kontoyiannis, and A.G. Mikos, "Drug Delivery and Tissue Engineering to Promote Wound Healing in the Immunocompromised Host: Current Challenges and Future Directions," *Adv. Drug Deliv. Rev.*, 129, 319-329 (2018).
 477. B. Akar, A.M. Tataara, A. Sutradhar, H.-Y. Hsiao, M. Miller, M.-H. Cheng, A.G. Mikos, and E.M. Brey, "Large Animal Models of an *In Vivo* Bioreactor for Engineering Vascularized Bone," *Tissue Eng. Part B: Reviews*, 24, 317-325 (2018).
 478. J. Lu, X. Sun, H. Yin, X. Shen, S. Yang, Y. Wang, W. Jiang, Y. Sun, L. Zhao, X. Sun, S. Lu, A.G. Mikos, J. Peng, and X. Wang, "A Neurotrophic Peptide-Functionalized Self-Assembling Peptide Nanofiber Hydrogel Enhances Rat Sciatic Nerve Regeneration," *Nano Res.*, 11, 4599-4613 (2018).
 479. J. Yang, J.L. Guo, A.G. Mikos, C. He, and G. Cheng, "Material Processing and Design of Biodegradable Metal Matrix Composites for Biomedical Applications," *Ann. Biomed. Eng.*, 46, 1229-1240 (2018).
 480. B.T. Smith, A. Lu, E. Watson, M. Santoro, A.J. Melchiorri, E.C. Grosfeld, J.J.J.P. van den Beucken, J.A. Jansen, D.W. Scott, J.P. Fisher, and A.G. Mikos, "Incorporation of Fast Dissolving Glucose Porogens and Poly(Lactic-co-Glycolic Acid) Microparticles within Calcium Phosphate Cements for Bone Tissue Regeneration," *Acta Biomaterialia*, 78, 341-350 (2018).
 481. J. Lu, X. Shen, X. Sun, H. Yin, S. Yang, C. Lu, Y. Wang, Y. Liu, Y. Huang, Z. Yang, X. Dong, C. Wang, Q. Guo, L. Zhao, X. Sun, S. Lu, A.G. Mikos, J. Peng, and X. Wang, "Increased Recruitment of Endogenous Stem Cells and Chondrogenic Differentiation by a Composite Scaffold Containing Bone Marrow Homing Peptide for Cartilage Regeneration," *Theranostics*, 8, 5039-5058 (2018).
 482. M. Whitely, S. Cereceres, P. Dhavalikar, K. Salhadar, T. Wilems, B. Smith, A.G. Mikos, and E. Cosgriff-Hernandez, "Improved *In Situ* Seeding of 3D Printed Scaffolds Using Cell-Releasing Hydrogels," *Biomaterials*, 185, 194-204 (2018).
 483. S. Wang, Z. Zhao, Y. Yang, A.G. Mikos, Z. Qiu, T. Song, F. Cui, X. Wang, and C. Zhang, "A High-Strength Mineralized Collagen Bone Scaffold for Large-Sized Cranial Bone Defect Repair in Sheep," *Regener. Biomater.*, 5, 283-292 (2018).
 484. S.M. Bittner, J.L. Guo, A. Melchiorri, and A.G. Mikos, "Three-Dimensional Printing of Multilayered Tissue Engineering Scaffolds," *Materials Today*, 21, 861-874 (2018).
 485. E.J. Lee, T.M. Robinson, J.J. Tabor, A.G. Mikos, and J. Suh, "Reverse Transduction Can Improve Efficiency of AAV Vectors in Transduction-Resistant Cells," *Biotechnol. Bioeng.*, 115, 3042-3049 (2018).
 486. A.M. Tataara, S. Wurster, C.R. Lockworth, N.D. Albert, T.J. Walsh, A.G. Mikos, G.T. Eisenhoffer, and D.P. Kontoyiannis, "Immunosuppressed Adult Zebrafish Model of Mucormycosis," *Antimicrob. Agents Chemother.*, 62, e00698-18 (2018).
 487. S.M. Bittner, J.L. Guo, and A.G. Mikos, "Spatiotemporal Control of Growth Factors in Three-Dimensional Printed Scaffolds," *Bioprinting*, 11, e00032 (10pp) (2018).
 488. G.L. Koons and A.G. Mikos, "Progress in Three-Dimensional Printing with Growth Factors," *J. Controlled Release*, 295, 50-59 (2019).

489. Y.S. Kim, M. Majid, A.J. Melchiorri, and A.G. Mikos, "Applications of Decellularized Extracellular Matrix in Bone and Cartilage Tissue Engineering," *Bioeng. Transl. Med.*, **4**, 83-95 (2019).
490. L. Diaz-Gomez, B.T. Smith, P.D. Kontoyiannis, S.M. Bittner, A.J. Melchiorri, and A.G. Mikos, "Multimaterial Segmented Fiber Printing for Gradient Tissue Engineering," *Tissue Eng. Part C: Methods*, **25**, 12-24 (2019).
491. Y.S. Kim, M.M. Smoak, A.J. Melchiorri, and A.G. Mikos, "An Overview of the Tissue Engineering Market in the United States from 2011 to 2018," *Tissue Eng. Part A*, **25**, 1-8 (2019).
492. M.M. Smoak, H.A. Pearce, and A.G. Mikos, "Microfluidic Devices for Disease Modeling in Muscle Tissue," *Biomaterials*, **198**, 250-258 (2019).
493. M. Şentürk, G. Lin, Z. Zuo, D. Mao, E. Watson, A.G. Mikos, and H.J. Bellen, "Ubiquilins Regulate Autophagic Flux through mTOR Signalling and Lysosomal Acidification," *Nature Cell Biol.*, **21**, 384-396 (2019).
494. A.M. Tatara, G.L. Koons, E. Watson, T.C. Piepergerdes, S.R. Shah, B.T. Smith, J. Shum, J.C. Melville, I.A. Hanna, N. Demian, T. Ho, A. Ratcliffe, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Biomaterials-Aided Mandibular Reconstruction Using *In Vivo* Bioreactors," *Proceed. Natl. Acad. Sci. USA*, **116**, 6954-6963 (2019).
495. S.M. Bittner, B.T. Smith, L. Diaz-Gomez, C.D. Hudgins, A.J. Melchiorri, D.W. Scott, J.P. Fisher, and A.G. Mikos, "Fabrication and Mechanical Characterization of 3D Printed Vertical Uniform and Gradient Scaffolds for Bone and Osteochondral Tissue Engineering," *Acta Biomaterialia*, **90**, 37-48 (2019).
496. M.M. Smoak, A. Han, E. Watson, A. Kishan, K.J. Grande-Allen, E. Cosgriff-Hernandez, and A.G. Mikos, "Fabrication and Characterization of Electrospun Decellularized Muscle-Derived Scaffolds," *Tissue Eng. Part C: Methods*, **25**, 276-287 (2019).
497. J.L. Guo, Y.S. Kim, V.Y. Xie, B.T. Smith, E. Watson, J. Lam, H.A. Pearce, P.S. Engel, and A.G. Mikos, "Modular, Tissue-Specific, and Biodegradable Hydrogel Cross-Linkers for Tissue Engineering," *Science Adv.*, **5**, eaaw7396 (11pp) (2019).
498. I. Lodoso-Torrecilla, E.C. Grosfeld, A. Marra, B.T. Smith, A.G. Mikos, D.J.O. Ulrich, J.A. Jansen, and J.J.J.P. van den Beucken, "Multimodal Porogen Platforms for Calcium Phosphate Cement Degradation," *J. Biomed. Mater. Res. Part A*, **107A**, 1713-1722 (2019).
499. A.M. Tatara, E. Watson, N.D. Albert, P.D. Kontoyiannis, D.P. Kontoyiannis, and A.G. Mikos, "A Murine Model of Cutaneous Aspergillosis for Evaluation of Biomaterials-based Local Delivery Therapies," *J. Biomed. Mater. Res. Part A*, **107A**, 1867-1874 (2019).
500. L. Diaz-Gomez, P.D. Kontoyiannis, A.J. Melchiorri, and A.G. Mikos, "Three-Dimensional Printing of Tissue Engineering Scaffolds with Horizontal Pore and Composition Gradients," *Tissue Eng. Part C: Methods*, **25**, 411-420 (2019).
501. J.L. Guo, Y.S. Kim, and A.G. Mikos, "Biomacromolecules for Tissue Engineering: Emerging Biomimetic Strategies," *Biomacromolecules*, **20**, 2904-2912 (2019).
502. J. Navarro, J. Swayambunathan, M.E. Janes, M. Santoro, A.G. Mikos, and J.P. Fisher, "Dual-Chambered Membrane Bioreactor for Coculture of Stratified Cell Populations," *Biotechnol. Bioeng.*, **116**, 3253-3268 (2019).
503. Y. Du, J.L. Guo, J. Wang, A.G. Mikos, and S. Zhang, "Hierarchically Designed Bone Scaffolds: From Internal Cues to External Stimuli," *Biomaterials*, **218**, 119334 (20pp) (2019).
504. J. Lu, X. Yan, X. Sun, X. Shen, H. Yin, C. Wang, Y. Liu, C. Lu, H. Fu, S. Yang, Y. Wang, X. Sun, L. Zhao, S. Lu, A.G. Mikos, J. Peng, and X. Wang, "Synergistic Effects of Dual-Presenting VEGF- and BDNF-Mimetic Peptide Epitopes from Self-Assembling Peptide Hydrogels on Peripheral Nerve Regeneration," *Nanoscale*, **11**, 19943-19958 (2019).
505. G.L. Koons, K. Schenke-Layland, and A.G. Mikos, "Why, When, Who, What, How, and Where for Writing Literature Review Articles," *Ann. Biomed. Eng.*, **47**, 2334-2340 (2019).
506. P.D. Kontoyiannis, G.L. Koons, R.S. Hicklen, A.G. Mikos, and D.P. Kontoyiannis, "Insect Bite-Associated Invasive Fungal Infections," *Open Forum Infect. Dis.*, **6**, ofz385 (4pp) (2019).
507. E.R. Molina, L.K. Chim, M.C. Salazar, S.M. Mehta, B.A. Menegaz, S.-E. Lamhamedi-Cherradi, T. Satish, S. Mohiuddin, D. McCall, A.M. Zaske, B. Cuglievan, A.J. Lazar, D.W. Scott, K.J. Grande-Allen, J.A. Ludwig, and A.G. Mikos, "Mechanically Tunable Coaxial Electrospun Models of YAP/TAZ Mechanoresponse and IGF-1R Activation in Osteosarcoma," *Acta Biomaterialia*, **100**, 38-51 (2019).

508. Y.S. Kim, J.L. Guo, J. Lam, K.J. Grande-Allen, P.S. Engel, and A.G. Mikos, "Synthesis of Injectable, Thermally Responsive, Chondroitin Sulfate-Cross-Linked Poly(N-Isopropylacrylamide) Hydrogels," *ACS Biomater. Sci. Eng.*, **5**, 6405-6413 (2019).
509. M.L. Bedell, A.J. Melchiorri, J. Aleman, A. Skardal, and A.G. Mikos, "A High-Throughput Approach to Compare the Biocompatibility of Candidate Bioink Formulations," *Bioprinting*, **17**, e00068 (12pp) (2020).
510. S. Wang, Y. Yang, G.L. Koons, A.G. Mikos, Z. Qiu, T. Song, F. Cui, and X. Wang, "Tuning Pore Features of Mineralized Collagen/PCL Scaffolds for Cranial Bone Regeneration in a Rat Model," *Mater. Sci. Eng. C*, **106**, 110186 (10pp) (2020).
511. J.L. Guo, A. Li, Y.S. Kim, V.Y. Xie, B.T. Smith, E. Watson, G. Bao, and A.G. Mikos, "Click Functionalized, Tissue-Specific Hydrogels for Osteochondral Tissue Engineering," *J. Biomed. Mater. Res. Part A*, **108A**, 684-693 (2020).
512. E.R. Molina, L.K. Chim, M.C. Salazar, G.L. Koons, B.A. Menegaz, A. Ruiz-Velasco, S.-E. Lamhamedi-Cherradi, A.M. Vetter, T. Satish, B. Cuglievan, D.W. Scott, J.A. Ludwig, and A.G. Mikos, "3D Tissue-Engineered Tumor Model for Ewing's Sarcoma That Incorporates Bone-Like ECM and Mineralization," *ACS Biomater. Sci. Eng.*, **6**, 539-552 (2020).
513. L. Diaz-Gomez, M.E. Elizondo, G.L. Koons, M. Diba, L.K. Chim, E. Cosgriff-Hernandez, A.J. Melchiorri, and A.G. Mikos, "Fiber Engraving for Bioink Bioprinting within 3D Printed Tissue Engineering Scaffolds," *Bioprinting*, **18**, e00076 (8pp) (2020).
514. M.J. Lerman, B.T. Smith, A.G. Gerald, M. Santoro, J.A. Fookes, A.G. Mikos, and J.P. Fisher, "Aminated 3D Printed Polystyrene Maintains Stem Cell Proliferation and Osteogenic Differentiation," *Tissue Eng. Part C: Methods*, **26**, 118-131 (2020).
515. E.-C. Grosfeld, B.T. Smith, M. Santoro, I. Lodoso-Torrecilla, J.A. Jansen, D.J.O. Ulrich, A.J. Melchiorri, D.W. Scott, A.G. Mikos, and J.J.J.P. van den Beucken, "Fast Dissolving Glucose Porogens for Early Calcium Phosphate Cement Degradation and Bone Regeneration," *Biomed. Mater.*, **15**, 025002 (10pp) (2020).
516. G. Gillispie, P. Prim, J. Copus, J.P. Fisher, A.G. Mikos, J.J. Yoo, A. Atala, and S.J. Lee, "Assessment Methodologies for Extrusion-Based Bioink Printability," *Biofabrication*, **12**, 022003 (15pp) (2020).
517. B.T. Smith, S.M. Bittner, E. Watson, M.M. Smoak, L. Diaz-Gomez, E.R. Molina, Y.S. Kim, C.D. Hudgins, A.J. Melchiorri, D.W. Scott, K.J. Grande-Allen, J.J. Yoo, A. Atala, J.P. Fisher, and A.G. Mikos, "Multimaterial Dual Gradient Three-Dimensional Printing for Osteogenic Differentiation and Spatial Segregation," *Tissue Eng. Part A*, **26**, 239-252 (2020).
518. E.R. Molina, L.K. Chim, S. Barrios, J.A. Ludwig, and A.G. Mikos, "Modeling the Tumor Microenvironment and Pathogenic Signaling in Bone Sarcoma," *Tissue Eng. Part B: Reviews*, **26**, 249-271 (2020).
519. L. Diaz-Gomez, M.E. Elizondo, P.D. Kontoyiannis, G.L. Koons, B. Dacunha-Marinho, X. Zhang, P. Ajayan, J.A. Jansen, A.J. Melchiorri, and A.G. Mikos, "Three-Dimensional Extrusion Printing of Porous Scaffolds Using Storable Ceramic Inks," *Tissue Eng. Part C: Methods*, **26**, 292-305 (2020).
520. E. Watson, B.T. Smith, M.M. Smoak, A.M. Tatara, S.R. Shah, H.A. Pearce, K.J. Hogan, J. Shum, J.C. Melville, I.A. Hanna, N. Demian, J.C. Wenke, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Localized Mandibular Infection Affects Remote *In Vivo* Bioreactor Bone Generation," *Biomaterials*, **256**, 120185 (12pp) (2020).
521. S. Wurster, A.M. Tatara, N.D. Albert, A.S. Ibrahim, J. Heitman, S.C. Lee, A.C. Shetty, C. McCracken, K.T. Graf, A.G. Mikos, V.M. Bruno, and D.P. Kontoyiannis, "Tornadic Shear Stress Induces a Transient, Calcineurin-Dependent Hypervirulent Phenotype in Mucorales Molds," *mBio*, **11**, e01414-20 (15pp) (2020).
522. M.M. Smoak and A.G. Mikos, "Advances in Biomaterials for Skeletal Muscle Engineering and Obstacles Still to Overcome," *Materials Today Bio*, **7**, 100069 (12pp) (2020).
523. E. Watson, A.M. Tatara, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "An Ovine Model of *In Vivo* Bioreactor-Based Bone Generation," *Tissue Eng. Part C: Methods*, **26**, 384-396 (2020).
524. G.L. Koons, M. Diba, and A.G. Mikos, "Materials Design for Bone-Tissue Engineering," *Nature Rev. Mater.*, **5**, 584-603 (2020).
525. A. Hurley-Novatny, N. Arumugasaamy, M. Kimicata, H. Baker, A.G. Mikos, and J.P. Fisher, "Concurrent Multi-Lineage Differentiation of Mesenchymal Stem Cells through Spatial Presentation of Growth Factors," *Biomed. Mater.*, **15**, 055035 (13pp) (2020).

526. K.J. Hogan and A.G. Mikos, "Biodegradable Thermoresponsive Polymers: Applications in Drug Delivery and Tissue Engineering," *Polymer*, **211**, 123063 (18pp) (2020).
527. Y.S. Kim, A.J. Chien, J.L. Guo, B.T. Smith, E. Watson, H.A. Pearce, G.L. Koons, A.M. Navara, J. Lam, D.W. Scott, K.J. Grande-Allen, and A.G. Mikos, "Chondrogenesis of Cocultures of Mesenchymal Stem Cells and Articular Chondrocytes in Poly(L-Lysine)-Loaded Hydrogels," *J. Controlled Release*, **328**, 710-721 (2020).
528. M.L. Bedell, A.M. Navara, Y. Du, S. Zhang, and A.G. Mikos, "Polymeric Systems for Bioprinting," *Chem. Rev.*, **120**, 10744-10792 (2020).
529. J.L. Guo, Y.S. Kim, E.A. Orchard, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "A Rabbit Femoral Condyle Defect Model for Assessment of Osteochondral Tissue Regeneration," *Tissue Eng. Part C: Methods*, **26**, 554-564 (2020).
530. A.C. Farr, K.J. Hogan, and A.G. Mikos, "Nanomaterial Additives for Fabrication of Stimuli-Responsive Skeletal Muscle Tissue Engineering Constructs," *Adv. Healthcare Mater.*, **9**, 2000730 (17pp) (2020).
531. G.J. Gillispie, A. Han, M. Uzun-Per, J.P. Fisher, A.G. Mikos, M.K.K. Niazi, J.J. Yoo, S.J. Lee, and A. Atala, "The Influence of Printing Parameters and Cell Density on Bioprinting Outcomes," *Tissue Eng. Part A*, **26**, 1349-1358 (2020).
532. A. Conev, E.E. Litsa, M.R. Perez, M. Diba, A.G. Mikos, and L.E. Kavraki, "Machine Learning-Guided Three-Dimensional Printing of Tissue Engineering Scaffolds," *Tissue Eng. Part A*, **26**, 1359-1368 (2020).
533. Y.S. Kim and A.G. Mikos, "Emerging Strategies in Reprogramming and Enhancing the Fate of Mesenchymal Stem Cells for Bone and Cartilage Tissue Engineering," *J. Controlled Release*, **330**, 565-574 (2021).
534. S. Wurster, O.E. Ruiz, K.M. Samms, A.M. Tatara, N.D. Albert, P.H. Kahan, A.T. Nguyen, A.G. Mikos, D.P. Kontoyiannis, and G.T. Eisenhoffer, "EGF-Mediated Suppression of Cell Extrusion during Mucosal Damage Attenuates Opportunistic Fungal Invasion," *Cell Reports*, **34**, 108896 (12pp) (2021).
535. J.L. Guo, L. Diaz-Gomez, V.Y. Xie, S.M. Bittner, E.Y. Jiang, B. Wang, and A.G. Mikos, "Three-Dimensional Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering," *Bioprinting*, **22**, e00136 (9pp) (2021).
536. S. Peper, T. Vo, N. Ahuja, K. Awad, A.G. Mikos, and V. Varanasi, "Bioprinted Nanocomposite Hydrogels: A Proposed Approach to Functional Restoration of Skeletal Muscle and Vascular Tissue Following Volumetric Muscle Loss," *Curr. Opin. Pharmacol.*, **58**, 35-43 (2021).
537. M.M. Smoak, K.J. Hogan, K.J. Grande-Allen, and A.G. Mikos, "Bioinspired Electrospun dECM Scaffolds Guide Cell Growth and Control the Formation of Myotubes," *Science Adv.*, **7**, eabg4123 (12pp) (2021).
538. M. Diba, G.L. Koons, M.L. Bedell, and A.G. Mikos, "3D Printed Colloidal Biomaterials Based on Photo-Reactive Gelatin Nanoparticles," *Biomaterials*, **274**, 120871 (16pp) (2021).
539. J.L. Guo, Y.S. Kim, G.L. Koons, J. Lam, A.M. Navara, S. Barrios, V.Y. Xie, E. Watson, B.T. Smith, H.A. Pearce, E.A. Orchard, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Bilayered, Peptide-Biofunctionalized Hydrogels for *In Vivo* Osteochondral Tissue Repair," *Acta Biomaterialia*, **128**, 120-129 (2021).
540. S.M. Bittner, H.A. Pearce, K.J. Hogan, M.M. Smoak, J.L. Guo, A.J. Melchiorri, D.W. Scott, and A.G. Mikos, "Swelling Behaviors of 3D Printed Hydrogel and Hydrogel-Microcarrier Composite Scaffolds," *Tissue Eng. Part A*, **27**, 665-678 (2021).
541. H.A. Pearce, Y.S. Kim, E. Watson, K. Bahrami, M.M. Smoak, E.Y. Jiang, M. Elder, T. Shannon, and A.G. Mikos, "Development of a Modular, Biocompatible Thiolated Gelatin Microparticle Platform for Drug Delivery and Tissue Engineering Applications," *Regener. Biomater.*, **8**, rbab012 (12pp) (2021).
542. Y.S. Kim, S.M. Mehta, J.L. Guo, H.A. Pearce, B.T. Smith, E. Watson, G.L. Koons, A.M. Navara, J. Lam, K.J. Grande-Allen, and A.G. Mikos, "Evaluation of Tissue Integration of Injectable, Cell-Laden Hydrogels of Cocultures of Mesenchymal Stem Cells and Articular Chondrocytes with an *Ex Vivo* Cartilage Explant Model," *Biotechnol. Bioeng.*, **118**, 2958-2966 (2021).
543. G.L. Koons, P.D. Kontoyiannis, M. Diba, L.K. Chim, D.W. Scott, and A.G. Mikos, "Effect of 3D Printing Temperature on Bioactivity of Bone Morphogenetic Protein-2 Released from Polymeric Constructs," *Ann. Biomed. Eng.*, **49**, 2114-2125 (2021).
544. T. Bello, C. Paindelli, L.A. Diaz-Gomez, A. Melchiorri, A.G. Mikos, P.S. Nelson, E. Dondossola, and T.S. Gujral, "Computational Modeling Identifies Multitargeted Kinase Inhibitors as Effective Therapies

- for Metastatic, Castration-Resistant Prostate Cancer,” *Proceed. Natl. Acad. Sci. USA*, **118**, e2103623118 (11pp) (2021).
545. B. Melendez, S. Shah, Y. Jiang, J. Dottino, E. Watson, H. Pearce, M. Borthwick, R.E. Schmandt, Q. Zhang, K. Cumpian, J. Celestino, B. Fellman, Y. Yuan, K.H. Lu, A.G. Mikos, and M.S. Yates, “Novel Polymer-Based System for Intrauterine Delivery of Everolimus for Anti-Cancer Applications,” *J. Controlled Release*, **339**, 521-530 (2021).
 546. S.-E. Lamhamedi-Cherradi, S. Mohiuddin, D.K. Mishra, S. Krishnan, A. Ruiz Velasco, A.M. Vetter, K. Pence, D. McCall, D.D. Truong, B. Cuglievan, B.A. Menegaz, B. Utama, N.C. Daw, E.R. Molina, R.J. Zielinski, J.A. Livingston, R. Gorlick, A.G. Mikos, M.P. Kim, and J.A. Ludwig, “Transcriptional Activators YAP/TAZ and AXL Orchestrate Dedifferentiation, Cell Fate, and Metastasis in Human Osteosarcoma,” *Cancer Gene Ther.*, **28**, 1325-1338 (2021).
 547. H.A. Pearce, E.Y. Jiang, J.W.R. Swain, A.M. Navara, J.L. Guo, Y.S. Kim, A. Woehr, J.D. Hartgerink, and A.G. Mikos, “Evaluating the Physicochemical Effects of Conjugating Peptides into Thermogelling Hydrogels for Regenerative Biomaterials Applications,” *Regener. Biomater.*, **8**, rbab073 (13pp) (2021).
 548. H.A. Pearce and A.G. Mikos, “Machine Learning and Medical Devices: The Next Step for Tissue Engineering,” *Engineering*, **7**, 1704-1706 (2021).
 549. Y. Chai, H. Zhao, S. Yang, X. Gao, Z. Cao, J. Lu, Q. Sun, W. Liu, Z. Zhang, J. Yang, X. Wang, T. Chen, X. Kong, A.G. Mikos, X. Zhang, Y. Zhang, and X. Wang, “Structural Alignment Guides Oriented Migration and Differentiation of Endogenous Neural Stem Cells for Neurogenesis in Brain Injury Treatment,” *Biomaterials*, **280**, 121310 (11pp) (2022).
 550. M. Sarti, M. Parlani, L. Diaz-Gomez, A.G. Mikos, P. Cerveri, S. Casarin, and E. Dondossola, “Deep Learning for Automated Analysis of Cellular and Extracellular Components of the Foreign Body Response in Multiphoton Microscopy Images,” *Front. Bioeng. Biotechnol.*, **9**, 797555 (15pp) (2022).
 551. A.M. Navara, Y.S. Kim, Y. Xu, C.L. Crafton, M. Diba, J.L. Guo, and A.G. Mikos, “A Dual-Gelling Poly(N-isopropylacrylamide)-Based Ink and Thermoreversible Poloxamer Support Bath for High-Resolution Bioprinting,” *Bioact. Mater.*, **14**, 302-312 (2022).
 552. E.R. Molina, L.K. Chim, S.-E. Lamhamedi-Cherradi, S. Mohiuddin, D. McCall, B. Cuglievan, S. Krishnan, R.W. Porter, D.R. Ingram, W.-L. Wang, A.J. Lazar, D.W. Scott, D.D. Truong, N.C. Daw, J.A. Ludwig, and A.G. Mikos, “Correlation of Nuclear pIGF-1R/IGF-1R and YAP/TAZ in a Tissue Microarray with Outcomes in Osteosarcoma Patients,” *Oncotarget*, **13**, 521-533 (2022).
 553. K.J. Hogan, M.M. Smoak, G.L. Koons, M.R. Perez, M.L. Bedell, E.Y. Jiang, S. Young, and A.G. Mikos, “Bioinspired Electrospun Decellularized Extracellular Matrix Scaffolds Promote Muscle Regeneration in a Rat Skeletal Muscle Defect Model,” *J. Biomed. Mater. Res. Part A*, **110**, 1090-1100 (2022).
 554. J. Zhu, S. Yang, Y. Qi, Z. Gong, H. Zhang, K. Liang, P. Shen, Y.-Y. Huang, Z. Zhang, W. Ye, L. Yue, S. Fan, S. Shen, A.G. Mikos, X. Wang, and X. Fang, “Stem Cell-Homing Hydrogel-Based miR-29b-5p Delivery Promotes Cartilage Regeneration by Suppressing Senescence in an Osteoarthritis Rat Model,” *Science Adv.*, **8**, eabk0011 (16pp) (2022).
 555. K. Zhang, B. Ma, K. Hu, B. Yuan, X. Sun, X. Song, Z. Tang, H. Lin, X. Zhu, Y. Zheng, A.J. Garcia, A.G. Mikos, J.M. Anderson, and X. Zhang, “Evidence-Based Biomaterials Research,” *Bioact. Mater.*, **15**, 495-503 (2022).
 556. B.A.J.A. van Oirschot, E.J.W. Geven, A.G. Mikos, J.J.J.P. van den Beucken, and J.A. Jansen, “A Mini-Pig Mandibular Defect Model for Evaluation of Craniomaxillofacial Bone Regeneration,” *Tissue Eng. Part C: Methods*, **28**, 193-201 (2022).
 557. X. Song, Z. Tang, W. Liu, K. Chen, J. Liang, B. Yuan, H. Lin, X. Zhu, Y. Fan, X. Shi, P. Zhao, L. Yang, K. Zhang, A.G. Mikos, and X. Zhang, “Biomaterials and Regulatory Science,” *J. Mater. Sci. Technol.*, **128**, 221-227 (2022).
 558. J. Bai, A.M. Navara, L. Zhao, Y. Song, X. Yang, X. Lian, and A.G. Mikos, “Harnessing Electrostatic Interactions for Enhanced Printability of Alginate-Based Bioinks,” *Bioprinting*, **27**, e00215 (11pp) (2022).
 559. C. Paindelli, S. Casarin, F. Wang, L. Diaz-Gomez, J. Zhang, A.G. Mikos, C.J. Logothetis, P. Friedl, and E. Dondossola, “Enhancing ²²³Ra Treatment Efficacy by Anti-β1 Integrin Targeting,” *J. Nucl. Med.*, **63**, 1039-1045 (2022).
 560. P. Zhao, W. Liu, J. Tian, X. Shi, X. Gu, and A.G. Mikos, “Tissue Engineering and Regulatory Science,” *Engineering*, **13**, 9-12 (2022).

561. M.L. Bedell, A.L. Torres, K.J. Hogan, Z. Wang, B. Wang, A.J. Melchiorri, K.J. Grande-Allen, and A.G. Mikos, "Human Gelatin-Based Composite Hydrogels for Osteochondral Tissue Engineering and their Adaptation into Bioinks for Extrusion, Inkjet, and Digital Light Processing Bioprinting," *Biofabrication*, **14**, 045012 (26pp) (2022).
562. H.A. Pearce and A.G. Mikos, "Thermogelling Materials and Their Important Role in Biomedical Engineering Applications," *Curr. Opin. Biomed. Eng.*, **24**, 100412 (7pp) (2022).
563. B. Yuan, Y. Zhang, R. Zhao, H. Lin, X. Yang, X. Zhu, K. Zhang, A.G. Mikos, and X. Zhang, "A Unique Biomimetic Modification Endows Polyetherketoneketone Scaffold with Osteoinductivity by Activating cAMP/PKA Signaling Pathway," *Science Adv.*, **8**, eabq7116 (12pp) (2022).
564. W. Zhao, J. Yang, Y. Kang, K. Hu, M. Jiao, B. Zhao, Y. Jiang, C. Liu, F. Ding, B. Yuan, B. Ma, K. Zhang, A.G. Mikos, and X. Zhang, "Animal Models of Rotator Cuff Injury and Repair: A Systematic Review," *Tissue Eng. Part B: Reviews*, **28**, 1258-1273 (2022).
565. M. Parlani, M.L. Bedell, A.G. Mikos, P. Friedl, and E. Dondossola, "Dissecting the Recruitment and Self-Organization of α SMA-Positive Fibroblasts in the Foreign Body Response," *Science Adv.*, **8**, eadd0014 (14pp) (2022).
566. B. Mahadik, R. Margolis, S. McLoughlin, A. Melchiorri, S.J. Lee, J. Yoo, A. Atala, A.G. Mikos, and J.P. Fisher, "An Open-Source Bioink Database for Microextrusion 3D Printing," *Biofabrication*, **15**, 015008 (11pp) (2023).
567. H.A. Pearce, J.W.R. Swain, L.H. Victor, K.J. Hogan, E.Y. Jiang, M.L. Bedell, A.M. Navara, A. Farsheed, Y.S. Kim, J.L. Guo, J.D. Hartgerink, K.J. Grande-Allen, and A.G. Mikos, "Thermogelling Hydrogel Charge and Lower Critical Solution Temperature Influence Cellular Infiltration and Tissue Integration in an *Ex Vivo* Cartilage Explant Model," *J. Biomed. Mater. Res. Part A*, **111**, 15-34 (2023).
568. M.L. Bedell, Z. Wang, K.J. Hogan, A.L. Torres, H.A. Pearce, L.K. Chim, K.J. Grande-Allen, and A.G. Mikos, "The Effect of Multi-Material Architecture on the *Ex Vivo* Osteochondral Integration of Bioprinted Constructs," *Acta Biomaterialia*, **155**, 99-112 (2023).
569. K. Loukelis, Z.A. Helal, A.G. Mikos, and M. Chatzinikolaidou, "Nanocomposite Bioprinting for Tissue Engineering Applications," *Gels*, **9**, 103 (30pp) (2023).
570. E. Watson and A.G. Mikos, "Advances in *In Vitro* and *In Vivo* Bioreactor-Based Bone Generation for Craniofacial Tissue Engineering," *BME Frontiers*, **4**, 0004 (14pp) (2023).
571. E. Watson, H.A. Pearce, K.J. Hogan, N.W.M. van Dijk, M.M. Smoak, S. Barrios, B.T. Smith, A.M. Tataru, T.C. Woernley, J. Shum, C.B. Pearl, J.C. Melville, T. Ho, I.A. Hanna, N. Demian, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Repair of Complex Ovine Segmental Mandibulectomy Utilizing Tissue Engineered Bony Flaps," *PLoS One*, **18**, e0280481 (19pp) (2023).
572. Y. Zhao, J. Zheng, Y. Xiong, H. Wang, S. Yang, X. Sun, L. Zhao, A.G. Mikos, and X. Wang, "Hierarchically Engineered Artificial Lamellar Bone with High Strength and Toughness," *Small Struct.*, **4**, 2200256 (9pp) (2023).
573. B. van Oirschot, A.G. Mikos, Q. Liu, J.J.J.P. van den Beucken, and J.A. Jansen, "Fast Degradable Calcium Phosphate Cement for Maxillofacial Bone Regeneration," *Tissue Eng. Part A*, **29**, 161-171 (2023).
574. L.K. Chim, I.L. Williams, C.J. Bashor, and A.G. Mikos, "Tumor-Associated Macrophages Induce Inflammation and Drug Resistance in a Mechanically Tunable Engineered Model of Osteosarcoma," *Biomaterials*, **296**, 122076 (12pp) (2023).
575. R. Wang, M. Wang, R. Jin, Y. Wang, M. Yi, Q. Li, J. Li, K. Zhang, C. Sun, Y. Nie, C. Huang, A.G. Mikos, and X. Zhang, "High Strength Titanium with Fibrous Grain for Advanced Bone Regeneration," *Adv. Science*, **10**, 2207698 (11pp) (2023).
576. Q. Liu, I. Lodoso-Torrecilla, R. Klein Gunnewiek, H.R. Harhangi, A.G. Mikos, L. van Niftrik, J.A. Jansen, L. Chen, and J.J.J.P. van den Beucken, "Tunable Calcium Phosphate Cement Formulations for Predictable Local Release of Doxycycline," *Materialia*, **28**, 101769 (11pp) (2023).
577. B. van Oirschot, J.J.J.P. van den Beucken, A.G. Mikos, and J.A. Jansen, "Lateral Bone Augmentation Using a Three-Dimensional-Printed Polymeric Chamber to Compare Biomaterials," *Tissue Eng. Part C: Methods*, **29**, 287-297 (2023).
578. K.J. Hogan, M.R. Perez, and A.G. Mikos, "Extracellular Matrix Component-Derived Nanoparticles for Drug Delivery and Tissue Engineering," *J. Controlled Release*, **360**, 888-912 (2023).
579. A.G. Mikos, "3D Micropattern Force Regulates Stem Cell Function," *Natl. Sci. Rev.*, **10**, nwad198 (2pp) (2023).

580. E.Y. Jiang, S.T. Desroches, and A.G. Mikos, "Particle Carriers for Controlled Release of Peptides," *J. Controlled Release*, **360**, 953-968 (2023).
581. K. Awad, N. Ahuja, A.S. Yacoub, L. Brotto, S. Young, A.G. Mikos, P. Aswath, and V. Varanasi, "Revolutionizing Bone Regeneration: Advanced Biomaterials for Healing Compromised Bone Defects," *Front. Aging*, **4**, 1217054 (15pp) (2023).
582. K.J. Hogan, M.R. Perez, H. Oztatli, S. Si, Z. Wang, E.Y. Jiang, M. Diba, B. Garipcan, and A.G. Mikos, "Development of 3D-Printing Composite Inks Based on Photoreactive Cartilage Extracellular Matrix and Gelatin Nanoparticles," *Bioprinting*, **36**, e00317 (15pp) (2023).
583. K.J. Hogan, H. Oztatli, M.R. Perez, S. Si, R. Umurhan, E. Jui, Z. Wang, E.Y. Jiang, S.R. Han, M. Diba, K.J. Grande-Allen, B. Garipcan, and A.G. Mikos, "Development of Photoreactive Demineralized Bone Matrix 3D Printing Colloidal Inks for Bone Tissue Engineering," *Regener. Biomater.*, **10**, rbad090 (14pp) (2023).
584. M. Bousnaki, A. Bakopoulou, I. Grivas, C. Bekiari, A. Pich, M. Rizk, K. Keklikoglou, E. Papachristou, G.C. Papadopoulos, A. Kritis, A.G. Mikos, and P. Koidis, "Managing Temporomandibular Joint Osteoarthritis by Dental Stem Cell Secretome," *Stem Cells Rev. Rep.*, **19**, 2957-2979 (2023).
585. J.C. Chen, G. Bhav, F. Alrashdan, A. Dhuliyawalla, K.J. Hogan, A.G. Mikos, and J.T. Robinson, "Self-Rectifying Magnetoelectric Metamaterials for Remote Neural Stimulation and Motor Function Restoration," *Nature Mater.*, **23**, 139-146 (2024).
586. N. Ahuja, K. Awad, S. Yang, H. Dong, A.G. Mikos, P. Aswath, S. Young, M. Brotto, and V. Varanasi, "SiON_x Coating Regulates Mesenchymal Stem Cell Antioxidant Capacity via Nuclear Erythroid Factor 2 Activity under Toxic Oxidative Stress Condition," *Antioxidants*, **13**, 189 (20pp) (2024).
587. S.M. Stanford, T.P. Nguyen, J. Chang, Z. Zhao, G.L. Hackman, E. Santelli, C.M. Sanders, M. Katiki, E. Dondossola, B.L. Brauer, M.A. Diaz, Y. Zhan, S.H. Ramsey, P.A. Watson, B. Sankaran, C. Paindelli, V. Parietti, A.G. Mikos, A. Lodi, A. Bagrodia, A. Elliott, R.R. McKay, R. Murali, S. Tiziani, A.N. Kettenbach, and N. Bottini, "Targeting Prostate Tumor Low-Molecular Weight Tyrosine Phosphatase for Oxidation-Sensitizing Therapy," *Science Adv.*, **10**, eadg7887 (19pp) (2024).
588. C. Paindelli, V. Parietti, S. Barrios, P. Shepherd, T. Pan, W.-L. Wang, R.L. Satcher, C.J. Logothetis, N. Navone, M.T. Campbell, A.G. Mikos, and E. Dondossola, "Bone Mimetic Environments Support Engineering, Propagation, and Analysis of Therapeutic Response of Patient-Derived Cells, *Ex Vivo* and *In Vivo*," *Acta Biomaterialia*, **178**, 83-92 (2024).
589. S. Han, J.P. Fisher, A.G. Mikos, and K.J. Hogan, "Polymeric Nanomaterials in 3D Bioprinting for Tissue Engineering and Drug Delivery Applications," *Bioprinting*, **40**, e00345 (23pp) (2024).
590. G.L. Koons, P.D. Kontoyiannis, L. Diaz-Gomez, S.Z. Elsarrag, D.W. Scott, M. Diba, and A.G. Mikos, "Influence of Polymeric Microparticle Size and Loading Concentration on 3D Printing Accuracy and Degradation Behavior of Composite Scaffolds," *3D Print. Addit. Manuf.*, **11**, e813-e827 (2024).
591. K. Loukelis, N. Koutsomarkos, A.G. Mikos, and M. Chatzinikolaidou, "Advances in 3D Bioprinting for Regenerative Medicine Applications," *Regener. Biomater.*, **11**, rbae033 (34pp) (2024).
592. A.M. Navara, Y. Xu, M.R. Perez, and A.G. Mikos, "Aspects of a Suspended Bioprinting System Affect Cell Viability and Support Bath Properties," *Tissue Eng. Part A*, **30**, 256-269 (2024).
593. D.D. Truong, C. Weistuch, K.A. Murgas, P. Admane, B.L. King, J.C. Lee, S.-E. Lamhamedi-Cherradi, J. Swaminathan, N.C. Daw, N. Gordon, V. Gopalakrishnan, R.G. Gorlick, N. Somaiah, J.O. Deasy, A.G. Mikos, A. Tannenbaum, and J. Ludwig, "Mapping the Single-Cell Differentiation Landscape of Osteosarcoma," *Clin. Cancer Res.*, **30**, 3259-3272 (2024).
594. E.-C. Grosfeld, N.W.M. van Dijk, D.J.O. Ulrich, A.G. Mikos, J.A. Jansen, and J.J.J.P. van den Beucken, "Compositional Variations in Calcium Phosphate Cement and Poly(Lactic-co-Glycolic-Acid) Porogens Do Not Affect the Orthotopic Performance of Calcium Phosphate Cement/Poly(Lactic-co-Glycolic-Acid) Cements," *J. Biomed. Mater. Res. Part A*, **113**, e37827 (11pp) (2025).
595. L. Aboal-Castro, Y. Radziunas-Salinas, M. Pita-Vilar, B. Carnero, A.G. Mikos, C. Alvarez-Lorenzo, M.T. Flores-Arias, and L. Diaz-Gomez, "Laser-Assisted Micropatterned 3D Printed Scaffolds with Customizable Surface Topography and Porosity for Modulation of Cell Function," *Adv. Healthcare Mater.*, **14**, 2403992 (13pp) (2025).
596. V. Kolliopoulos and A.G. Mikos, "Decellularized Extracellular Matrix as a Drug Delivery Carrier," *J. Controlled Release*, **382**, 113661 (11pp) (2025).
597. M.M. Kennedy and A.G. Mikos, "Biomaterials-Based Approaches to Mandibular Tissue Engineering: Where We Were, Where We Are, Where We Are Going," *Regener. Biomater.*, **12**, rba024 (16pp) (2025).

598. K. Loukelis, U. Jammalamadaka, and A.G. Mikos, "3D Printing-Enabled Spatial Patterning of Biomimetic Signals for Bone Tissue Engineering," *Adv. Drug Deliv. Rev.*, **224**, 115656 (14pp) (2025).
599. A.M. Tatara, A.G. Mikos, and D.P. Kontoyiannis, "Immunoengineering: An Emerging Field in Infectious Diseases," *J. Infect. Dis.*, **232**, 28-35 (2025).
600. S. Barrios, E. Serafini, L. La Posta, D.N. Meyers, N. Dunbarr, P.G. Corn, F. Elefteriou, C.G. Ambrose, S. Casarin, A.G. Mikos, and E. Dondossola, "Dissecting the Effects of ²²³Radium on the Bone Microenvironment," *Acta Pharm. Sin. B*, in press.
601. Y. Liu, J. Xu, J. Yuan, J. Guo, G. Guan, J. Zhao, A.G. Mikos, and L. Wang, "Gradient Hydrogel with Bioactive Glass for Tendon-Bone Interface Regeneration: Enhancing Biomechanical Strength and Synchronized Tissue Regeneration," *Acta Biomaterialia*, in press.
602. J. Tian, Z. Chen, Z. Liu, Y. Kang, J. Jiang, Y. Fan, J. Zhao, A.G. Mikos, and H. Lin, "In Vitro and In Vivo Evaluation of a Bovine Collagen Matrix for Acute Rotator Cuff Tear Repair," *Tissue Eng. Part A*, in press.
603. G. Allegri, L. Pavirani, S. Barrios, G. Alessandrelli, L. Marsilio, A.G. Mikos, P. Cerveri, S. Casarin, and E. Dondossola, "Bo-Net: A Deep Learning-Based Model for Automatic Bone Stromal Cell Segmentation of Fluorescence Microscopy Images," *Adv. Intell. Syst.*, submitted.
604. Y. Wang, P. Liu, C. Feng, Z. Hou, H. Shi, X. Chen, Z. Li, Y. Xiao, X. Li, X. Zhu, K. Zhang, A.G. Mikos, and X. Zhang, "Bone Matrix-Inspired Whitlockite Porous Ceramic with Effects of Autophagy Activation Contributes to Bone Regeneration," *Bioact. Mater.*, submitted.
605. X. Song, B. Yuan, K. Zhang, C. Chen, Y. Zhao, A.G. Mikos, and X. Zhang, "Trends of Innovative Medical Devices in China and the United States," *Nature Commun.*, submitted.
606. V. Kolliopoulos, U. Jammalamadaka, and A.G. Mikos, "Decellularized Extracellular Matrix Biomaterials for Osteoarthritis Study and Treatment," *Regener. Eng. Transl. Med.*, submitted.
607. X. Li, Y. Wang, C. Feng, X. Xu, H. Teng, X. Yang, Q. Ren, H. Chen, J. Wei, K. Zhang, R. Chen, J. Xu, X. Zhu, A.G. Mikos, and X. Zhang, "Tenacious Concrete-Like Calcium Phosphate Ceramic Contributes to Bone Regeneration and Self-Adaptive Skull Growth in Juvenile Animals," *Adv. Mater.*, submitted.
608. M.R. Perez, V.K. Kolliopoulos, K.J. Hogan, S.A. Chari, Z.A. Helal, V.Y. Lang, S. Yin, G.I. Ezeokeke, M.H. Yu, K.J. McHugh, K.J. Grande-Allen, and A.G. Mikos, "3D Printing of Nanoparticulate Cartilage Decellularized Extracellular Matrix for Cartilage Tissue Engineering," *Bioprinting*, submitted.
609. M. Laude, V. Kolliopoulos, L.J. White, A.G. Mikos, and E. Cosgriff-Hernandez, "Extracellular Matrix-Based Materials from Decellularized Tissue: Opportunities, Challenges, and Future Directions in Regenerative Medicine," *Adv. Healthcare Mater.*, submitted.

Citations

111,313 (Google Scholar, 8/2025)

H-Index

170 (Google Scholar, 8/2025)

Educational Publications

1. S.L. Ishaug and A.G. Mikos, "A Course on Tissue Engineering," *Chem. Eng. Educ.*, **29**, 126-129 (1995).
2. L.V. McIntire and A.G. Mikos, "Biomedical Chemical Engineering," in *McGraw-Hill Encyclopedia of Science & Technology*, 8th Ed., Vol. 2, McGraw-Hill, New York, 1997, pp. 702-705.
3. W.M. Reichert, T.R. Harris, J. Lemons, A.G. Mikos, D.A. Puleo, F.J. Schoen, and J.S. Temenoff, "2011 Panel on Developing a Biomaterials Curriculum," *J. Biomed. Mater. Res. Part A*, **100A**, 802-816 (2012).

Chapters in Books and Encyclopedias

1. N.A. Peppas and A.G. Mikos, "Preparation Methods and Structure of Hydrogels," in *Hydrogels in Medicine and Pharmacy. Volume I: Fundamentals*, N.A. Peppas, Ed., CRC Press, Boca Raton, 1986, pp. 1-25.
2. A.G. Mikos and N.A. Peppas, "Fracture Mechanics of Low Molecular Weight Polymers," in *Adhesion in Solids*, D.M. Mattox, J.E.E. Baglin, R.J. Gottschall, and C.D. Batich, Eds., MRS Symposium Proceedings, Vol. 119, Materials Research Society, Pittsburgh, 1988, pp. 63-68.
3. A.G. Mikos and N.A. Peppas, "Scaling Concepts and Molecular Theories of Adhesion of Synthetic Polymers to Glycoprotein Networks," in *Bioadhesive Drug Delivery Systems*, V. Lenaerts and R. Gurny, Eds., CRC Press, Boca Raton, 1990, pp. 25-42.
4. N.A. Peppas and A.G. Mikos, "Kinetics of Mucus-Polymer Interactions," in *Bioadhesion-Possibilities and Future Trends*, R. Gurny and H.E. Junginger, Eds., Wissenschaftliche Verlagsgesellschaft, Stuttgart, 1990, pp. 65-85.
5. A.G. Mikos and N.A. Peppas, "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," in *Optical and Electrical Properties of Polymers*, J.A. Emerson and J.M. Torkelson, Eds., MRS Symposium Proceedings, Vol. 214, Materials Research Society, Pittsburgh, 1991, pp. 189-193.
6. A.G. Mikos, "Surfaces and Interfaces of Polymeric Biomaterials," in *Biocompatible Materials Engineering*, E. Wintermantel, Ed., Swiss Federal Institute of Technology Press, Zürich, Switzerland, 1991, pp. 9-62.
7. A.G. Mikos and C. Kiparissides, "Asymmetric Membrane Formation in the Heterogeneous Polymerization of Methyl Methacrylate," in *Kinetics of Phase Transformations*, M.O. Thompson, M.J. Aziz, and G.B. Stephenson, Eds., MRS Symposium Proceedings, Vol. 205, Materials Research Society, Pittsburgh, 1992, pp. 441-446.
8. A.G. Mikos, H.L. Wald, G. Sarakinos, S.M. Leite, and R. Langer, "Biodegradable Cell Transplantation Devices for Tissue Regeneration," in *Tissue-Inducing Biomaterials*, L.G. Cima and E.S. Ron, Eds., MRS Symposium Proceedings, Vol. 252, Materials Research Society, Pittsburgh, 1992, pp. 353-358.
9. A.G. Mikos, "Biodegradable Polymers for Tissue Regeneration," in *Profiles on Biotechnology*, T.G. Villa and J. Abalde, Eds., University of Santiago Press, Santiago de Compostela, Spain, 1992, pp. 547-554.
10. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "A Novel Biodegradable Poly(Lactic-co-Glycolic Acid) Foam for Bone Regeneration," in *Biomaterials for Drug and Cell Delivery*, A.G. Mikos, R. Murphy, H. Bernstein, and N.A. Peppas, Eds., MRS Symposium Proceedings, Vol. 331, Materials Research Society, Pittsburgh, 1994, pp. 33-40.
11. S.L. Ishaug, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Adhesion on Biodegradable Polymer Substrates," in *Biomaterials for Drug and Cell Delivery*, A.G. Mikos, R. Murphy, H. Bernstein, and N.A. Peppas, Eds., MRS Symposium Proceedings, Vol. 331, Materials Research Society, Pittsburgh, 1994, pp. 121-126.
12. M.J. Yaszemski, A.G. Mikos, R.G. Payne, and W.C. Hayes, "Biodegradable Polymer Composites for Temporary Replacement of Trabecular Bone: The Effect of Polymer Molecular Weight on Composite Strength and Modulus," in *Biomaterials for Drug and Cell Delivery*, A.G. Mikos, R. Murphy, H. Bernstein, and N.A. Peppas, Eds., MRS Symposium Proceedings, Vol. 331, Materials Research Society, Pittsburgh, 1994, pp. 251-256.
13. S.L. Ishaug, R.C. Thomson, A.G. Mikos, and R. Langer, "Biomaterials for Organ Regeneration," in *Molecular Biology and Biotechnology*, R.A. Meyers, Ed., VCH Publishers, New York, 1995, pp. 86-93.
14. R.C. Thomson, S.L. Ishaug, A.G. Mikos, and R. Langer, "Polymers for Biological Systems," in *Molecular Biology and Biotechnology*, R.A. Meyers, Ed., VCH Publishers, New York, 1995, pp. 717-724.
15. M.J. Yaszemski, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R. Langer, and A.G. Mikos, "The *In Vitro* Mechanical Strength and *In Vivo* Bone Ingrowth of a Degrading Polymeric Composite Biomaterial," in *Polymers in Medicine and Pharmacy*, A.G. Mikos, K.W. Leong, M.J. Yaszemski, J.A. Tamada, and M.L. Radomsky, Eds., MRS Symposium Proceedings, Vol. 394, Materials Research Society, Pittsburgh, 1995, pp. 21-24.
16. R.C. Thomson, M.J. Yaszemski, J.M. Powers, T.P. Harrigan, and A.G. Mikos, "Poly(α -Hydroxy Ester)/Short Fiber Hydroxyapatite Composite Foams for Orthopedic Application," in *Polymers in Medicine and Pharmacy*, A.G. Mikos, K.W. Leong, M.J. Yaszemski, J.A. Tamada, and M.L.

- Radomsky, Eds., MRS Symposium Proceedings, Vol. 394, Materials Research Society, Pittsburgh, 1995, pp. 25-30.
17. L.J. Suggs, R.G. Payne, E.Y. Kao, L.B. Alemany, M.J. Yaszemski, K.K. Wu, and A.G. Mikos, "The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(Propylene Fumarate) and Poly(Ethylene Oxide)," in *Polymers in Medicine and Pharmacy*, A.G. Mikos, K.W. Leong, M.J. Yaszemski, J.A. Tamada, and M.L. Radomsky, Eds., MRS Symposium Proceedings, Vol. 394, Materials Research Society, Pittsburgh, 1995, pp. 167-173.
 18. L.J. Suggs and A.G. Mikos, "Synthetic Biodegradable Polymers for Medical Applications," in *Physical Properties of Polymers Handbook*, J.E. Mark, Ed., American Institute of Physics, Woodbury, 1996, pp. 615-624.
 19. R.C. Thomson, S.L. Ishaug, A.G. Mikos, and R. Langer, "Polymers for Biological Systems," in *Encyclopedia of Molecular Biology: Fundamentals and Applications*, R.A. Meyers, Ed., VCH Publishers, New York, 1996, pp. 31-44.
 20. R.C. Thomson, M.J. Yaszemski, and A.G. Mikos, "Polymer Scaffold Processing," in *Principles of Tissue Engineering*, R.P. Lanza, R. Langer, and W.L. Chick, Eds., R.G. Landes, Austin, 1997, pp. 263-272.
 21. R.D. Bostrom and A.G. Mikos, "Tissue Engineering of Bone," in *Synthetic Biodegradable Polymer Scaffolds*, A. Atala and D. Mooney, Eds., Birkhäuser, Boston, 1997, pp. 215-234.
 22. M.T. am Ende and A.G. Mikos, "Diffusion Controlled Delivery of Proteins from Hydrogels and Other Hydrophilic Systems," in *Protein Delivery: Physical Systems*, L.M. Sanders and R.W. Hendren, Eds., Plenum, New York, 1997, pp. 139-165.
 23. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Polymer Concepts Regarding Tissue Engineering," in *Portland Bone Symposium*, Oregon Health Sciences University, Portland, 1997, pp. 474-489.
 24. R.G. Payne, S.A. Sivaram, J.E. Babensee, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Marrow Stromal Osteoblast Encapsulation and Seeding onto a Crosslinking Biodegradable Polymer," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 87-89.
 25. E. Yuksel, R. Cleek, A.B. Weinfeld, J. Waugh, J. Jensen, A.G. Mikos, S. Shenaq, and M. Spira, "Effects of Lipogenic Factors on Survival Rates of Fat Grafts," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 173-175.
 26. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Hydroxyapatite Fiber Reinforced Poly(α -Hydroxy Ester) Foams for Bone Regeneration," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 269-271.
 27. D.J. Kim, S.J. Peter, A.W. Yasko, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "TGF- β Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 278-280.
 28. E. Yuksel, M. Widmer, A.B. Weinfeld, M. Kattash, J. Waugh, J. Jensen, A.G. Mikos, and S. Shenaq, "Generation of Shaped Cartilage Using Perichondrial and Periosteal Flaps Activated by Growth Factor-Incorporated Biodegradable Scaffolds," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 287-289.
 29. E. Yuksel, B. Ray, M. Widmer, A.B. Weinfeld, J. Waugh, J. Jensen, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Prefabrication of Breast Utilizing Biodegradable PLGA Polymers: Angiogenic and Lipogenic Factors," in *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, N.A. Peppas, D.J. Mooney, A.G. Mikos, and L. Brannon-Peppas, Eds., American Institute of Chemical Engineers, New York, 1997, pp. 341-343.
 30. S.J. Peter, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Poly(Propylene Fumarate)," in *Handbook of Biodegradable Polymers*, A.J. Domb, J. Kost, and D.M. Wiseman, Eds., Hardwood Academic Publishers, Amsterdam, The Netherlands, 1997, pp. 87-97.

31. C.W. Patrick, Jr., A.G. Mikos, and L.V. McIntire, "Prospectus of Tissue Engineering," in *Frontiers in Tissue Engineering*, C.W. Patrick, Jr., A.G. Mikos, and L.V. McIntire, Eds., Elsevier Science, New York, 1998, pp. 3-11.
32. M.S. Widmer and A.G. Mikos, "Fabrication of Biodegradable Polymer Scaffolds for Tissue Engineering," in *Frontiers in Tissue Engineering*, C.W. Patrick, Jr., A.G. Mikos, and L.V. McIntire, Eds., Elsevier Science, New York, 1998, pp. 107-120.
33. G.R.D. Evans, K. Brandt, M.S. Widmer, A. Gürelek, T. Savel, P.K. Gupta, R. Lohman, J. Williams, J. Hodges, A. Nabawi, C.W. Patrick, Jr., and A.G. Mikos, "Tissue Engineered Nerve Conduits: The Use of Biodegradable Poly-DL-lactic-co-glycolic Acid (PLGA) Scaffolds in Peripheral Nerve Regeneration," in *Biological Matrices and Tissue Reconstruction*, G.B. Stark, R. Horch, and E. Tánčzos, Eds., Springer, Berlin, 1998, pp. 225-235.
34. S.J. Peter, P. Kim, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "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*, R.C. Thomson, D.J. Mooney, K.E. Healy, Y. Ikada, and A.G. Mikos, Eds., MRS Symposium Proceedings, Vol. 530, Materials Research Society, Pittsburgh, 1998, pp. 87-92.
35. L.J. Suggs, E.Y. Kao, L.L. Palombo, R.S. Krishnan, M.S. Widmer, and A.G. Mikos, "Preparation and Characterization of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," in *Polymers for Tissue Engineering*, M.S. Shoichet and J.A. Hubbell, Eds., VSP, Utrecht, 1998, pp. 99-112.
36. A.C. Jen, S.J. Peter, and A.G. Mikos, "Preparation and Use of Porous Poly(α -Hydroxyester) Scaffolds for Bone Tissue Engineering," in *Tissue Engineering Methods and Protocols*, J.R. Morgan and M.L. Yarmush, Eds., Humana Press, Totowa, 1999, pp. 133-140.
37. H.A. von Recum, M.J. Yaszemski, and A.G. Mikos, "Tissue Engineering Concepts," in *Handbook of Biomaterials Evaluation*, 2nd ed., A.F. von Recum, Ed., Taylor & Francis, Philadelphia, 1999, pp. 385-409.
38. L. Lu and A.G. Mikos, "Poly(glycolic acid)," in *Polymer Data Handbook*, J.E. Mark, Ed., Oxford University Press, New York, 1999, pp. 566-569.
39. L. Lu and A.G. Mikos, "Poly(lactic acid)," in *Polymer Data Handbook*, J.E. Mark, Ed., Oxford University Press, New York, 1999, pp. 627-633.
40. R.C. Thomson, A.K. Shung, M.J. Yaszemski, and A.G. Mikos, "Polymer Scaffold Processing," in *Principles of Tissue Engineering*, 2nd Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Academic Press, San Diego, 2000, pp. 251-262.
41. L. Lu, S.J. Peter, G.N. Stamatas, and A.G. Mikos, "Polymeric Delivery Vehicles for Bone Growth Factors," in *Controlled Drug Delivery: Designing Technologies for the Future*, K. Park and R.J. Msrny, Eds., American Chemical Society, Washington, D.C., 2000, pp. 124-138.
42. W.T. Godbey and A.G. Mikos, "Non-Viral Gene Delivery," in *Biomaterials and Drug Delivery toward New Millennium*, K.D. Park, I.C. Kwon, N. Yui, S.Y. Jeong, and K. Park, Eds., Han Rim Won Publishing, Seoul, Korea, 2000, pp. 223-236.
43. J.S. Temenoff, L. Lu, and A.G. Mikos, "Bone Tissue Engineering Using Synthetic Biodegradable Polymer Scaffolds," in *Bone Engineering*, J.E. Davies, Ed., EM Squared, Toronto, 2000, pp. 454-461.
44. G.N. Bancroft and A.G. Mikos, "Bone Tissue Engineering by Cell Transplantation," in *Tissue Engineering for Therapeutic Use 5*, Y. Ikada and N. Ohshima, Eds., Elsevier Science, New York, 2001, pp. 151-163.
45. E.L. Hedberg and A.G. Mikos, "Bone Augmentation and Repair," in *Encyclopedia of Materials: Science and Technology*, D.F. Williams, Ed., Elsevier Science, New York, 2001, 782-787.
46. V.I. Sikavitsas, G.N. Bancroft, and A.G. Mikos, "Formation of Three Dimensional Marrow Stromal Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. LL1.2.1-LL1.2.6.
47. R.G. Payne, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres for Bone Tissue Engineering," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. LL1.7.1-LL1.7.5.

48. J.P. Fisher, T.A. Holland, D. Dean, and A.G. Mikos, "Photocrosslinked Poly(Propylene Fumarate) Scaffolds for Orthopedic Applications," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. LL5.5.1-LL5.5.6.
49. E. Behraves and A.G. Mikos, "Fabrication of an Injectable Porous Synthetic Biodegradable Hydrogel for Dental Tissue Engineering," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. LL5.6.1-LL5.6.6.
50. H. Shin, S. Jo, and A.G. Mikos, "Synthetic Biodegradable Polymer Networks Modulating Marrow Stromal Osteoblast Adhesion," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. LL6.5.1-LL6.5.6.
51. A.K. Shung and A.G. Mikos, "Effects of Block Lengths and Initial Water Content on the Swelling and Degradative Characteristics of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. MM1.4.1-MM1.4.6.
52. E.L. Hedberg and A.G. Mikos, "Controlled Release of Bone Growth Factors from Injectable, Biodegradable Polymer Scaffolds for Bone Tissue Engineering," in *Biomaterials for Drug Delivery and Tissue Engineering*, S. Mallapragada, M. Tracy, B. Narasimhan, E. Mathiowitz, and R. Korsmeyer, Eds., MRS Symposium Proceedings, Vol. 662, Materials Research Society, Warrendale, 2001, pp. NN3.7.1-NN3.7.6.
53. R.G. Payne and A.G. Mikos, "Synthesis of Synthetic Polymers: Poly(Propylene Fumarate)," in *Methods of Tissue Engineering*, A. Atala and R. Lanza, Eds., Academic Press, San Diego, 2002, pp. 649-652.
54. H.L. Holtorf and A.G. Mikos, "Cationic and Non-Condensing Polymer-Based Gene Delivery," in *Pharmaceutical Perspectives of Nucleic Acid-Based Therapeutics*, R.I. Mahato and S.W. Kim, Eds., Taylor & Francis, New York, 2002, pp. 367-387.
55. G.N. Bancroft and A.G. Mikos, "Bone Tissue Engineering by Cell Transplantation," in *Polymer Based Systems on Tissue Engineering, Replacement and Regeneration*, R.L. Reis and D. Cohn, Eds., Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002, pp. 251-263.
56. J.S. Temenoff and A.G. Mikos, "Injectable Biodegradable Materials for Orthopaedic Tissue Engineering," in *Polymer Based Systems on Tissue Engineering, Replacement and Regeneration*, R.L. Reis and D. Cohn, Eds., Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002, pp. 299-312.
57. J.S. Temenoff, E.S. Steinbis, and A.G. Mikos, "Biodegradable Scaffolds," in *Orthopedic Tissue Engineering: Basic Science and Practice*, V.M. Goldberg and A.I. Caplan, Eds., Marcel Dekker, New York, 2004, pp. 77-103.
58. F.K. Kasper and A.G. Mikos, "Biomaterials and Gene Therapy," in *Molecular and Cellular Foundations of Biomaterials*, N.A. Peppas and M.V. Sefton, Eds., Advances in Chemical Engineering, Vol. 29, Elsevier, San Diego, 2004, pp. 131-168.
59. E. Jabbari, L. Lu, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Injectable Polymers and Hydrogels for Orthopaedic and Dental Applications," in *Tissue Engineering in Musculoskeletal Clinical Practice*, L.J. Sandell and A.J. Grodzinsky, Eds., American Academy of Orthopaedic Surgeons, Rosemont, 2004, pp. 331-340.
60. A.G. Mikos, L. Lu, J.S. Temenoff, and J.K. Tessmar, "Synthetic Bioresorbable Polymer Scaffolds," in *Biomaterials Science: An Introduction to Materials in Medicine*, 2nd Ed., B.D. Ratner, A.S. Hoffman, F.J. Schoen, and J.E. Lemons, Eds., Elsevier, New York, 2004, pp. 735-749.
61. M.E. Gomes, R.L. Reis, and A.G. Mikos, "Injectable Polymeric Scaffolds for Bone Tissue Engineering," in *Biodegradable Systems in Tissue Engineering and Regenerative Medicine*, R.L. Reis and J.S. Roman, Eds., CRC Press, Boca Raton, 2005, pp. 29-38.
62. J.K.V. Tessmar, T.A. Holland, and A.G. Mikos, "Salt Leaching for Polymer Scaffolds: Laboratory-Scale Manufacture of Cell Carriers," in *Scaffolding in Tissue Engineering*, P.X. Ma and J. Elisseeff, Eds., Taylor & Francis, Boca Raton, 2006, pp. 111-124.
63. X. Shi and A.G. Mikos, "Poly(Propylene Fumarate)," in *An Introduction to Biomaterials*, S.A. Guelcher and J.O. Hollinger, Eds., CRC Press, Boca Raton, 2006, pp. 205-218.

64. A.G. Mikos, G. Sarakinos, S.M. Leite, J.P. Vacanti, and R. Langer, "Laminated Three-Dimensional Biodegradable Foams for Use in Tissue Engineering," in *The Biomaterials Silver Jubilee Compendium: The Best Papers Published in Biomaterials 1980-2004*, D.F. Williams, Ed., Elsevier, New York, 2006, pp. 93-100.
65. A.S. Mistry, X. Shi, and A.G. Mikos, "Nanocomposite Scaffolds for Tissue Engineering," in *Tissue Engineering and Artificial Organs*, The Biomedical Engineering Handbook, Vol. 3, 3rd Ed., J.D. Bronzino, Ed., CRC Press, Boca Raton, 2006, pp. 40-140-11.
66. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," in *Tissue Engineering*, J.P. Fisher, Ed., Advances in Experimental Medicine and Biology, Vol. 585, Springer, New York, 2006, pp. 225-241.
67. P.Q. Ruhé, O.C. Boerman, F.G.M. Russel, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Controlled Release of rhBMP-2 Loaded Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites *In Vivo*," in *Bioceramics 18*, Key Engineering Materials, Vols. 309-311, Trans Tech Publications, Uetikon-Zurich, Switzerland, 2006, pp. 973-976.
68. M.E. Gomes, R.L. Reis, and A.G. Mikos, "Bone Tissue Engineering Constructs Based on Starch Scaffolds and Bone Marrow Cells Cultured in a Flow Perfusion Bioreactor," in *Advanced Materials Forum III*, Materials Science Forum, Vols. 514-516, Trans Tech Publications, Uetikon-Zurich, Switzerland, 2006, pp. 980-984.
69. L.J. Suggs, S.A. Moore, and A.G. Mikos, "Synthetic Biodegradable Polymers for Medical Applications," in *Physical Properties of Polymers Handbook*, 2nd Ed., J.E. Mark, Ed., Springer, New York, 2006, pp. 939-950.
70. H. Park, J.S. Temenoff, and A.G. Mikos, "Biodegradable Orthopaedic Implants," in *Engineering of Functional Skeletal Tissues*, F. Bronner, M.C. Farach-Carson, and A.G. Mikos, Eds., Topics in Bone Biology, Vol. 3, Springer-Verlag, London, 2007, pp. 55-68.
71. J.S. Temenoff, F.K. Kasper, and A.G. Mikos, "Fumarate-based Macromers as Scaffolds for Tissue Engineering Applications," in *Topics in Tissue Engineering*, N. Ashammakhi, R.L. Reis, and E. Chiellini, Eds., Expertissues E-book, Vol. 3, University of Oulu, Oulu, Finland, 2007, pp. 6.1-6.16.
72. A.S. Mistry, X. Shi, and A.G. Mikos, "Nanocomposite Scaffolds for Tissue Engineering," in *Tissue Engineering*, J.P. Fisher, A.G. Mikos, and J.D. Bronzino, Eds., CRC Press, Boca Raton, 2007, pp. 11-11-11.
73. M.B. Murphy and A.G. Mikos, "Polymer Scaffold Fabrication," in *Principles of Tissue Engineering*, 3rd Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Elsevier Academic Press, San Diego, 2007, pp. 309-321.
74. U. Sharma, A.G. Mikos, and S.C. Cowin, "Mechanosensory Mechanisms in Bone," in *Principles of Tissue Engineering*, 3rd Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Elsevier Academic Press, San Diego, 2007, pp. 919-933.
75. S. Young, K.A. Athanasiou, A.G. Mikos, and M.E.-K. Wong, "Oral and Maxillofacial Surgery," in *Principles of Tissue Engineering*, 3rd Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Elsevier Academic Press, San Diego, 2007, pp. 1079-1094.
76. M.C. Hacker and A.G. Mikos, "Synthetic Polymers," in *Principles of Regenerative Medicine*, A. Atala, R.P. Lanza, J.A. Thomson, and R.M. Nerem, Eds., Elsevier Academic Press, San Diego, 2008, pp. 604-635.
77. L. Klouda, J.D. Kretlow, and A.G. Mikos, "Tailored Biomaterials for Tissue Engineering Needs and their Clinical Translation," in *Translational Approaches in Tissue Engineering and Regenerative Medicine*, J.J. Mao, G. Vunjak-Novakovic, A.G. Mikos, and A. Atala, Eds., Artech House, Norwood, 2008, pp. 325-337.
78. S. van Gaalen, M. Kruyt, G. Meijer, A.S. Mistry, A.G. Mikos, J. van den Beucken, J.A. Jansen, K. de Groot, R. Cancedda, C. Olivo, M.J. Yaszemski, and W. Dhert, "Tissue Engineering of Bone," in *Tissue Engineering*, C. van Blitterswijk, Ed., Elsevier Academic Press, San Diego, 2008, pp. 559-610.
79. F.K. Kasper, J. Liao, J.D. Kretlow, V.I. Sikavitsas, and A.G. Mikos, "Flow Perfusion Culture of Mesenchymal Stem Cells for Bone Tissue Engineering," in *StemBook: Tissue Engineering*, S. Bhatia and J. Polak, Eds., Harvard Stem Cell Institute, Cambridge, 2008, doi/10.3824/stembook.1.18.1, <http://www.stembook.org>.
80. L. Lu and A.G. Mikos, "Poly(glycolic acid)," in *Polymer Data Handbook*, 2nd Ed., J.E. Mark, Ed., Oxford University Press, New York, 2009, pp. 716-719.

81. L. Lu and A.G. Mikos, "Poly(lactic acid)," in *Polymer Data Handbook*, 2nd Ed., J.E. Mark, Ed., Oxford University Press, New York, 2009, pp. 794-800.
82. A.M. Martins, C.M. Alves, R.L. Reis, A.G. Mikos, and F.K. Kasper, "Toward Osteogenic Differentiation of Marrow Stromal Cells and *In Vitro* Production of Mineralized Extracellular Matrix onto Natural Scaffolds," in *Biological Interactions on Materials Surfaces: Understanding and Controlling Protein, Cell, and Tissue Responses*, D.A. Puleo and R. Bizios, Eds., Springer, New York, 2009, pp. 263-281.
83. P.C. Johnson and A.G. Mikos, "Preface," in *Angiogenesis*, P.C. Johnson and A.G. Mikos, Eds., Advances in Tissue Engineering, Vol. 1, Mary Ann Liebert, New Rochelle, 2010, pp. xv-xix.
84. P.C. Johnson, A.G. Mikos, J.P. Fisher, and J.A. Jansen, "Strategic Directions in Tissue Engineering," in *Angiogenesis*, P.C. Johnson and A.G. Mikos, Eds., Advances in Tissue Engineering, Vol. 1, Mary Ann Liebert, New Rochelle, 2010, pp. 3-13.
85. P.C. Johnson and A.G. Mikos, "Stem Cells: State of the Art," in *Stem Cells*, P.C. Johnson and A.G. Mikos, Eds., Advances in Tissue Engineering, Vol. 2, Mary Ann Liebert, New Rochelle, 2010, pp. 3-11.
86. J.D. Kretlow and A.G. Mikos, "Tissue Engineering: A Historical Perspective," in *Tissue Engineering for the Hand: Research Advances and Clinical Applications*, J. Chang and G. Gupta, Eds., World Scientific Publishing, Hackensack, 2010, pp. 1-15.
87. M.C. Hacker and A.G. Mikos, "Synthetic Polymers," in *Foundations of Regenerative Medicine*, A. Atala, R.P. Lanza, J.A. Thomson, and R.M. Nerem, Eds., Elsevier Academic Press, San Diego, 2010, pp. 336-367.
88. M.C. Hacker and A.G. Mikos, "Synthetic Polymers," in *Principles of Regenerative Medicine*, 2nd Ed., A. Atala, R.P. Lanza, J.A. Thomson, and R.M. Nerem, Eds., Elsevier Academic Press, San Diego, 2011, pp. 587-622.
89. E.J. Levorson, F.K. Kasper, and A.G. Mikos, "Scaffolds: Flow Perfusion Bioreactor Design," in *Comprehensive Biomaterials*, P. Ducheyne, K.E. Healy, D.W. Hutmacher, D.W. Grainger, and C.J. Kirkpatrick, Eds., Vol. 5, Elsevier, New York, 2011, pp. 1-11.
90. X. Shi, A. Henslee, D. Yoon, F.K. Kasper, and A.G. Mikos, "Poly(Propylene Fumarate)," in *An Introduction to Biomaterials*, 2nd Ed., J.O. Hollinger, Ed., CRC Press, Boca Raton, 2012, pp. 317-330.
91. K.E. Hammerick, A.G. Mikos, and F.K. Kasper, "Drug Delivery Strategies for Bone Regeneration," in *Nanostructured Biomaterials for Overcoming Biological Barriers*, M.J. Alonso and N.S. Csaba, Eds., Royal Society of Chemistry, Cambridge, United Kingdom, 2012, pp. 526-547.
92. L.A. Kinard, A.G. Mikos, and F.K. Kasper, "Bone Engineering," in *Tissue Engineering Principles and Practices*, J.P. Fisher, A.G. Mikos, J.D. Bronzino, and D.R. Peterson, Eds., CRC Press, Boca Raton, 2013, pp. 27-1-27-19.
93. M. Singh, F.K. Kasper, and A.G. Mikos, "Tissue Engineering Scaffolds," in *Biomaterials Science: An Introduction to Materials in Medicine*, 3rd Ed., B.D. Ratner, A.S. Hoffman, F.J. Schoen, and J.E. Lemons, Eds., Elsevier, New York, 2013, pp. 1138-1159.
94. J.E. Trachtenberg, F.K. Kasper, and A.G. Mikos, "Polymer Scaffold Fabrication," in *Principles of Tissue Engineering*, 4th Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Elsevier Academic Press, San Diego, 2014, pp. 423-440.
95. P.P. Spicer, S. Young, F.K. Kasper, K.A. Athanasiou, A.G. Mikos, and M.E.K. Wong, "Tissue Engineering in Oral and Maxillofacial Surgery," in *Principles of Tissue Engineering*, 4th Ed., R.P. Lanza, R. Langer, and J.P. Vacanti, Eds., Elsevier Academic Press, San Diego, 2014, pp. 1487-1506.
96. S. Lu, K. Kim, J. Lam, F.K. Kasper, and A.G. Mikos, "Fumarate-Based Hydrogels in Regenerative Medicine Applications," in *Biomaterials and Regenerative Medicine*, P.X. Ma, Ed., Cambridge University Press, New York, 2014, pp. 279-294.
97. A.M. Tataru, A. Ratcliffe, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "Biomaterials in Regenerative Medicine: Considerations in Early Process Development," in *Translational Regenerative Medicine*, A. Atala and J. Allickson, Eds., Elsevier Academic Press, San Diego, 2015, pp. 141-149.
98. B.N. Sathy, S.R. Shah, A.G. Mikos, and S.V. Nair, "Designing Scaffolds for Bone Tissue Engineering," in *Translating Biomaterials for Bone Graft: Bench-Top to Clinical Applications*, J.L. Ong and T. Guda, Eds., Taylor & Francis, Boca Raton, 2017, pp. 21-40.

99. E.J. Levorson-Wright, M. Santoro, F.K. Kasper, and A.G. Mikos, "Scaffolds: Flow Perfusion Bioreactor Design," in *Comprehensive Biomaterials*, 2nd Ed., P. Ducheyne, D.W. Grainger, K.E. Healy, D.W. Hutmacher, and C.J. Kirkpatrick, Eds., Vol. 5, Elsevier, New York, 2017, pp. 1-17.
100. J. Lam, E.J. Lee, E.C. Clark, and A.G. Mikos, "Honing Cell and Tissue Culture Conditions for Bone and Cartilage Tissue Engineering," in *Tissue Engineering and Regenerative Medicine*, J.P. Vacanti, Ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, 2017, pp. 59-77.
101. M.C. Hacker, J. Krieghoff, and A.G. Mikos, "Synthetic Polymers," in *Principles of Regenerative Medicine*, 3rd Ed., A. Atala, R. Lanza, A.G. Mikos, and R. Nerem, Eds., Elsevier Academic Press, San Diego, 2019, pp. 559-590.
102. B.T. Smith, E. Watson, I.A. Hanna, J.C. Melville, A.G. Mikos, and M.E. Wong, "Craniofacial Regenerative Medicine," in *Principles of Regenerative Medicine*, 3rd Ed., A. Atala, R. Lanza, A.G. Mikos, and R. Nerem, Eds., Elsevier Academic Press, San Diego, 2019, pp. 887-905.
103. J.L. Guo, T.C. Piepergerdes, and A.G. Mikos, "Bone Graft Engineering: Composite Scaffolds," in *Dental Implants and Bone Grafts: Materials and Biological Issues*, H.S. Alghamdi and J.A. Jansen, Eds., Elsevier, Cambridge, 2020, pp. 159-181.
104. M.L. Bedell, J.L. Guo, V.Y. Xie, A.M. Navara, and A.G. Mikos, "Polymer Scaffold Fabrication," in *Principles of Tissue Engineering*, 5th Ed., R. Lanza, R. Langer, J.P. Vacanti, and A. Atala, Eds., Elsevier Academic Press, San Diego, 2020, pp. 295-315.
105. S. Young, F.K. Kasper, J. Melville, R. Donahue, K.A. Athanasiou, A.G. Mikos, and M.E. Wong, "Tissue Engineering in Oral and Maxillofacial Surgery," in *Principles of Tissue Engineering*, 5th Ed., R. Lanza, R. Langer, J.P. Vacanti, and A. Atala, Eds., Elsevier Academic Press, San Diego, 2020, pp. 1201-1220.
106. H.A. Pearce, Y.S. Kim, L. Diaz-Gomez, and A.G. Mikos, "Tissue Engineering Scaffolds," in *Biomaterials Science: An Introduction to Materials in Medicine*, 4th Ed., W.R. Wagner, S.E. Sakiyama-Elbert, and M.J. Yaszemski, Eds., Elsevier Academic Press, San Diego, 2020, pp. 1317-1334.
107. K. Hogan and A.G. Mikos, "Introduction - Approaches to Controlled Drug Delivery," in *Controlled Drug Delivery Systems*, E. Opara, Ed., CRC Press, Boca Raton, 2020, pp. 1-2.
108. A.M. Navara and A.G. Mikos, "Thermogels for the Fabrication and Application of Regenerative Medicine Therapies," in *Regenerative Medicine: Biomaterials and Tissue Regeneration*, X. Fu and N.A. Peppas, Eds., People's Medical Publishing House, Beijing, China, 2020, pp. 9-18.
109. M. Majid, J.L. Guo, Y. Kim, A.J. Melchiorri, and A.G. Mikos, "Bioprinting Hydrogels and Tissue Engineering," in *Injectable Hydrogels for 3D Bioprinting*, I. Noh, X. Wang, and S. van Vlierberghe, Eds., Royal Society of Chemistry, Cambridge, United Kingdom, 2021, pp. 292-315.
110. A.M. Navara and A.G. Mikos, "Foreword," in *Bone Tissue Engineering: Bench to Bedside Using 3D Printing*, F.P.S. Guastaldi and B. Mahadik, Eds., Springer Nature, Cham, Switzerland, 2022, pp. v-vii.

Patents

1. A.G. Mikos and R. Langer, "Preparation of Bonded Fiber Structures for Cell Implantation," U.S. Patent No. 5,512,600 (April 30, 1996).
2. A.G. Mikos, G. Sarakinos, J.P. Vacanti, R.S. Langer, and L.G. Cima, "Polymer Membranes and Methods of Preparation of Three Dimensional Membrane Structures," U.S. Patent No. 5,514,378 (May 7, 1996).
3. A.G. Mikos, "Bone Regeneration Templates," U.S. Patent No. 5,522,895 (June 4, 1996).
4. L.J. Suggs, R.G. Payne, M.J. Yaszemski, and A.G. Mikos, "Poly(Propylene Fumarate-co-Ethylene Oxide)," U.S. Patent No. 5,527,864 (June 18, 1996).
5. L.J. Suggs, R.G. Payne, M.J. Yaszemski, and A.G. Mikos, "Method of Making Poly(Propylene Fumarate-co-Ethylene Oxide)," U.S. Patent No. 5,644,005 (July 1, 1997).
6. A.G. Mikos and R. Langer, "Preparation of Bonded Fiber Structures for Cell Implantation," U.S. Patent No. 5,696,175 (December 9, 1997).
7. M.J. Yaszemski, R.G. Payne, and A.G. Mikos, "Poly(Propylene Fumarate)," U.S. Patent No. 5,733,951 (March 31, 1998).
8. S.J. Peter, M.J. Yaszemski, and A.G. Mikos, "Bone Replacement Compound Comprising Poly(Propylene Fumarate)," U.S. Patent No. 6,124,373 (September 26, 2000).

9. A.G. Mikos and S. Jo, "Functionalized Poly(Propylene Fumarate) and Poly(Propylene Fumarate-co-Ethylene Glycol)," U.S. Patent No. 6,306,821 (October 23, 2001).
10. S.J. Peter, L.J. Suggs, P.S. Engel, and A.G. Mikos, "Synthesis of Poly(Propylene Fumarate) by Acylation of Propylene Glycol in the Presence of a Proton Scavenger," U.S. Patent No. 6,355,755 (March 12, 2002).
11. S. He, M.J. Yaszemski, and A.G. Mikos, "Poly(Propylene Fumarate) Crosslinked with Poly(Ethylene Glycol)," U.S. Patent No. 6,384,105 (May 7, 2002).
12. S. He, M.J. Yaszemski, and A.G. Mikos, "Biodegradable Poly(Propylene Fumarate) Networks Crosslinked with Poly(Propylene Fumarate)-Diacrylate Macromers," U.S. Patent No. 6,423,790 (July 23, 2002).
13. A.G. Mikos, R.S. Langer, J.P. Vacanti, L.G. Griffith, and G. Sarakinos, "Porous Biodegradable Polymeric Materials for Cell Transplantation," U.S. Patent No. 6,689,608 (February 10, 2004).
14. S. He, M.J. Yaszemski, and A.G. Mikos, "Biodegradable Poly(Propylene Fumarate) Networks Crosslinked with Poly(Propylene Fumarate)-Diacrylate Macromers," U.S. Patent No. 6,759,485 (July 6, 2004).
15. S. Jo and A.G. Mikos, "Biocompatible Macromers," U.S. Patent No. 6,884,778 (April 26, 2005).
16. A.G. Mikos and S. Jo, "Functionalized Poly(Propylene Fumarate) and Poly(Propylene Fumarate-co-Ethylene Glycol)," European Patent No. 1,171,006 (March 29, 2006).
17. A.G. Mikos, J.P. Vacanti, R.S. Langer, L.G. Griffith, and G. Sarakinos, "Porous Biodegradable Polymeric Materials for Cell Transplantation," U.S. Patent No. 7,462,471 (December 9, 2008).
18. A.G. Mikos and K. Tanahashi, "Synthesis and Characterization of Biodegradable Cationic Poly(Propylene Fumarate-co-Ethylene Glycol) Copolymer Hydrogels Modified with Agmatine for Enhanced Cell Adhesion," U.S. Patent No. 7,629,388 (December 8, 2009).
19. A.G. Mikos, R.S. Langer, J.P. Vacanti, L.G. Griffith, and G. Sarakinos, "Method of Forming a Tissue Structure by Introducing Cells into an Implanted Matrix," U.S. Patent No. 8,110,213 (February 7, 2012).
20. A.G. Mikos and M.C. Hacker, "Macromonomers and Hydrogels," U.S. Patent No. 8,349,982 (January 8, 2013).
21. C.G. Ambrose, T.A. Clyburn, and A.G. Mikos, "Antibiotic Microspheres for Treatment and Prevention of Osteomyelitis and Enhancement of Bone Regrowth," U.S. Patent No. 8,986,737 (March 24, 2015).
22. A.G. Mikos, F.K. Kasper, A.K. Ekenseair, T.N. Vo, K.W.M. Boere, and T.J. Touchet, "Injectable Hydrogels," U.S. Patent No. 9,283,299 (March 15, 2016).
23. A.G. Mikos, M.E. Wong, S.W. Young, J.D. Kretlow, M. Shi, F.K. Kasper, and P.P. Spicer, "Combined Space Maintenance and Bone Regeneration System for the Reconstruction of Large Osseous Defects," U.S. Patent No. 9,532,875 (January 3, 2017).
24. H.D. Dean, J.E. Wallace, A.G. Mikos, M. Wang, A. Siblani, K. Kim, and J.P. Fisher, "Continuous Digital Light Processing Additive Manufacturing of Implants," U.S. Patent No. 9,688,023 (June 27, 2017).
25. H.D. Dean, A. Siblani, E.J. Mott, J.P. Fisher, M.O. Wang, and A.G. Mikos, "Absorbant and Reflecting Biocompatible Dyes for Highly Accurate Medical Implants," U.S. Patent No. 10,183,477 (January 22, 2019).
26. A.M. Tatara, E. Watson, A.G. Mikos, and D.P. Kontoyiannis, "Poly(Diol Fumarates) and Poly(Diol Fumarate-co-Succinates)," U.S. Patent No. 10,835,614 (November 17, 2020).
27. H.D. Dean, A. Siblani, E.J. Mott, J.P. Fisher, M.O. Wang, and A.G. Mikos, "Continuous Digital Light Processing Additive Manufacturing of Implants," U.S. Patent No. 11,865,785 (January 9, 2024).
28. H.D. Dean, A. Siblani, E.J. Mott, J.P. Fisher, M.O. Wang, and A.G. Mikos, "Continuous Digital Light Processing Additive Manufacturing of Implants," U.S. Patent No. 12,220,870 (February 11, 2025).
29. S. Jo and A.G. Mikos, "Oligo(Poly(Ethylene Glycol) Fumarate) Modified with Cell Adhesion Peptides," pending.
30. J.P. Fisher and A.G. Mikos, "Photocrosslinking of Diethyl Fumarate/Poly(Propylene Fumarate) Biomaterials," pending.
31. H. Ueda, S. Jo, A.G. Mikos, D.M. Ammon, and J.C. Salamone, "Drug Delivery Compositions," pending.
32. A. Saraf, M.C. Hacker, and A.G. Mikos, "Novel Gene Delivery Vectors for Human Mesenchymal Stem Cells," pending.

33. A.G. Mikos, J.L. Guo, L.A. Diaz-Gomez, A.J. Melchiorri, M.E. Elizondo, G.L. Koons, and P.D. Kontoyiannis, "Extrusion Printing of Biocompatible Scaffolds," pending.

Proceedings

1. A.G. Mikos, N.A. Peppas, and C.G. Takoudis, "Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinylbenzene," *Polym. Mater. Sci. Eng. Prepr.*, **52**, 334-338 (1985).
2. N.A. Peppas and A.G. Mikos, "Polymer/Glycoprotein Chain Interpenetration in Bioadhesion," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **12**, 86-87 (1985).
3. A.G. Mikos and N.A. Peppas, "The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **12**, 210-211 (1985).
4. A.G. Mikos and N.A. Peppas, "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **13**, 97 (1986).
5. N.A. Peppas, A.G. Mikos, B.D. Barr-Howell, and L.M. Eshelman, "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," *Life Support Systems*, **4**(2), 397-398 (1986).
6. A.G. Mikos, E. Mathiowitz, N.A. Peppas, and R. Langer, "A Method of Measuring Mucoadhesive Forces on Polymeric Microparticles," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **18**, 109-110 (1991).
7. A.G. Mikos, G. Sarakinos, M.D. Lyman, D.E. Ingber, J.P. Vacanti, and R. Langer, "Prevascularization of Biodegradable Polymer Scaffolds for Hepatocyte Transplantation," *Polym. Mater. Sci. Eng. Prepr.*, **66**, 34-35 (1992).
8. M.J. Yaszemski, A.G. Mikos, R.G. Payne, and W.C. Hayes, "Synthesis and Purification Reaction Schemes for Poly(Propylene Fumarate), A Novel Degradable Biomaterial for Orthopaedic Applications," *Trans. Soc. Biomater.*, **17**, 460 (1994).
9. R.L. Cleek, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Proliferation via Controlled Release of Antisense Oligonucleotides," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **21**, 246-247 (1994).
10. H.A. von Recum, R.L. Cleek, S.G. Eskin, and A.G. Mikos, "Molecular Weight Effects on Lactic Acid Release During Poly(L-Lactic Acid) Degradation," *Trans. Soc. Biomater.*, **18**, 179 (1995).
11. M.J. Yaszemski, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Material," *Trans. Soc. Biomater.*, **18**, 184 (1995).
12. R.C. Thomson, G.G. Giordano, J.H. Collier, S.L. Ishaug, A.G. Mikos, D. Lahiri-Munir, S. Cumber, and C.A. Garcia, "Biodegradable Poly(α -Hydroxy Ester) Thin Films as Temporary Substrates for Retinal Pigment Epithelium Cell Transplantation," *Proceed. Bioeng. Conf.*, **29**, 93-94 (1995).
13. S.L. Ishaug, M.J. Yaszemski, R. Bizios, T.B. Aufdemorte, and A.G. Mikos, "Osteoblast Migration on Biodegradable Poly(α -Hydroxy Esters)," *Proceed. Bioeng. Conf.*, **29**, 149-150 (1995).
14. M.J. Miller, R.C. Thomson, E.K. Beahm, and A.G. Mikos, "Tissue-Engineered Vascularized Bone Using Biodegradable Polymers Combined with Organic Induction Factors," *Abstr. Eur. Symp. Contr. Drug Deliv.*, **4**, 91-93 (1996).
15. S.L. Ishaug, G.M. Crane, and A.G. Mikos, "3-D Osteoblast Culture in Biodegradable Polymer Foams," *Trans. World Biomater. Congr.*, **5**, I-288 (1996).
16. M.C. Wake, P.K. Gupta, and A.G. Mikos, "Pliable Degradable Polymer Foams to Engineer Soft Tissues," *Trans. World Biomater. Congr.*, **5**, I-958 (1996).
17. A.C. Jen, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," *Trans. World Biomater. Congr.*, **5**, I-979 (1996).
18. A.D. Ouellette, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "A Poly(L-Lysine)/ Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **23**, 889-890 (1996).
19. S.L. Ishaug-Riley, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Ectopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," *Trans. Orthop. Res. Soc.*, **43**, 545 (1997).

20. S.L. Ishaug-Riley, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "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).
21. R.L. Cleek, A.A. Rege, L.A. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Growth In Vitro by an Antisense Oligodeoxynucleotide Released from Poly(DL-Lactic-co-Glycolic Acid) Microparticles," *Trans. Soc. Biomater.*, 20, 85 (1997).
22. L.J. Suggs, E.Y. Kao, R.S. Krishnan, C.W. Patrick, and A.G. Mikos, "Evaluation of a Biodegradable Block Copolymer for Use as a Vascular Implant," *Trans. Soc. Biomater.*, 20, 299 (1997).
23. M.S. Widmer, A.C. Jen, R.D. Bostrom, and A.G. Mikos, "Cell Seeding in Three Dimensional Scaffolds," *Trans. Soc. Biomater.*, 20, 467 (1997).
24. M.S. Widmer, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," *Proceed. Bioeng. Conf.*, 35, 353-354 (1997).
25. S.J. Peter, J.A. Nolley, D.B. Kim, M.S. Widmer, P.S. Engel, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Curing Characteristics and Mechanical Properties of a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," *Proceed. Bioeng. Conf.*, 35, 359-360 (1997).
26. R.L. Cleek, R.J. Bjercke, A.A. Rege, S.G. Eskin, and A.G. Mikos, "Biodegradable Polymeric Carriers for a bFGF Antibody for Cardiovascular Application," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 24, 853-854 (1997).
27. G. Liu, S.G. Eskin, and A.G. Mikos, "Inhibitory Effects of $\beta 3$ Integrin Antibody on the Migration of Vascular Adventitial Fibroblasts Induced by Basic Fibroblast Growth Factor," *Proceed. South. Biomed. Eng. Conf.*, 17, 14 (1998).
28. E. Yuksel, M. Widmer, R. Cleek, A. Weinfeld, M. Kattash, A.G. Mikos, S. Shenaq, and M. Spira, "Vascularized Perichondrial Flaps for *In Vivo* Tissue Engineering in Auricular Reconstruction: Two Rabbit Models," *Proceed. South. Biomed. Eng. Conf.*, 17, 19 (1998).
29. A. Weinfeld, E. Yuksel, S. Wamsley, J. Jensen, B. Boutros, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Improvement of Free Fat Graft Survival: *In Vivo* Long-Term Delivery of IGF and Insulin Using PLGA/PEG Microspheres," *Proceed. South. Biomed. Eng. Conf.*, 17, 37 (1998).
30. L.J. Suggs, C.A. Garcia, and A.G. Mikos, "An Injectable, Biodegradable PEG Copolyester as a Carrier for Endothelial Cells," *Proceed. South. Biomed. Eng. Conf.*, 17, 66 (1998).
31. E. Yuksel, A. Jedrysiak, A. Weinfeld, A.G. Mikos, M. Spira, and S. Shenaq, "A Novel Fascio-Cutaneous Island Flap Model in the Rat for the Quantitative Analysis of Neo-Angiogenesis," *Proceed. South. Biomed. Eng. Conf.*, 17, 93 (1998).
32. S.J. Peter, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," *Proceed. South. Biomed. Eng. Conf.*, 17, 94 (1998).
33. E. Yuksel, R. Ray, S. Wamsley, A. Weinfeld, J. Waugh, M. Widmer, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Soft Tissue Engineering *In Vivo* with PLGA Scaffolds and PLGA/PEG Microsphere Long Term Delivery of Lipogenic Factors," *Proceed. South. Biomed. Eng. Conf.*, 17, 144 (1998).
34. E. Yuksel, A.B. Weinfeld, J. Waugh, R. Cleek, A.G. Mikos, M. Spira, and S. Shenaq, "*In Vivo* Engineering of Vascularized Fat Flaps: Long-Term Delivery of Angiogenic Factors for Axially Neo-Vascularized Tissues," *Proceed. South. Biomed. Eng. Conf.*, 17, 147 (1998).
35. L.J. Suggs and A.G. Mikos, "*In Vitro* Thrombogenicity of an Injectable, Biodegradable PEG Copolyester," *Trans. Soc. Biomater.*, 21, 23 (1998).
36. M.S. Widmer, P.K. Gupta, G.R.D. Evans, K. Brandt, T. Savel, A. Gurlek, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture and Characterization of Porous Biodegradable Polymer Conduits for Peripheral Nerve Regeneration," *Trans. Soc. Biomater.*, 21, 84 (1998).
37. S.J. Peter, S.T. Miller, G. Zhu, A.W. Yasko, and A.G. Mikos, "*In Vivo* Degradation of a Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Injectable Composite Scaffold," *Trans. Soc. Biomater.*, 21, 91 (1998).
38. E. Yuksel, A.B. Weinfeld, J. Waugh, R. Cleek, A.G. Mikos, M. Spira, and S. Shenaq, "Use of a Biodegradable Long-Term Delivery System for Neovascularization in Prefabricated Fascial Flaps *In Vivo*," *Trans. Soc. Biomater.*, 21, 113 (1998).
39. G.R.D. Evans, K. Brandt, M.S. Widmer, J. Hodges, P.K. Gupta, J. Williams, A. Gurlek, R. Lohman, C.W. Patrick, and A.G. Mikos, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds: Their Utilization in Peripheral Nerve Surgery," *Trans. Soc. Biomater.*, 21, 354 (1998).

40. A. Göpferich, S.J. Peter, C. Vergani, F.V. Burkensroda, and A.G. Mikos, "Biodegradable Block-Copolymers as Drug and Cell Carriers," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 25, 105-106 (1998).
41. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 25, 230-231 (1998).
42. L. Lu, S.J. Peter, G.N. Stamatias, and A.G. Mikos, "Polymeric Delivery Systems for Bone Growth Factors," *Polym. Prepr.*, 40, 277-278 (1999).
43. S.-L. He, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Development of a Biodegradable Bone Cement Based on Poly(Propylene Fumarate) and a Macromer," *Trans. Soc. Biomater.*, 22, 12 (1999).
44. J.E. Babensee, L.V. McIntire, A.G. Mikos, and C.W. Smith, "The Role of Complement in the Leukocyte Response to Biomaterial Implantation," *Trans. Soc. Biomater.*, 22, 24 (1999).
45. L. Lu, G.N. Stamatias, and A.G. Mikos, "Delivery of Transforming Growth Factor- β 1 from Poly(DL-Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) Microparticles," *Trans. Soc. Biomater.*, 22, 123 (1999).
46. L.J. Suggs, M.S. Shive, C.A. Garcia, J.M. Anderson, and A.G. Mikos, "In Vitro Cytotoxicity and In Vivo Biocompatibility of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," *Trans. Soc. Biomater.*, 22, 334 (1999).
47. Q. Liu, S.-L. He, R. Bahulekar, and A.G. Mikos, "Porous Anionic Hydrogels Based on sIPNs of Poly(2-Hydroxyethyl Methacrylate) and Poly(Acrylic Acid)," *Trans. Soc. Biomater.*, 22, 368 (1999).
48. K.J.L. Burg, A.G. Mikos, R.J. Beiler, C.R. Culberson, K.G. Greene, A.B. Loebbeck, W.D. Roland, S. Wyatt, C.R. Halberstadt, W.D. Holder, Jr., and T.C. Burg, "Particulate Selection and Importance to Cell Adhesion in Solvent-Cast, Particulate-Leached Polymeric Constructs," *Trans. Soc. Biomater.*, 22, 524 (1999).
49. L. Lu, L.C. Kam, M. Hasenbein, R. Bizios, and A.G. Mikos, "Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces," *Proceed. Bioeng. Conf.*, 42, 3-4 (1999).
50. J.B. Oldham, B.D. Porter, T.-S. Tan, H. Brisby, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Influence of Changes in Experimental Parameters on Size of PLGA Microspheres," *Proceed. Bioeng. Conf.*, 42, 681-682 (1999).
51. J.B. Oldham, B.D. Porter, T.E. Hefferan, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Biologic Activity of rhBMP-2 Following Release from PLGA Microspheres," *Proceed. Bioeng. Conf.*, 42, 745-746 (1999).
52. B.D. Porter, J.B. Oldham, R.G. Payne, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of a Biodegradable Bone Regeneration Scaffold," *Proceed. Bioeng. Conf.*, 42, 747-748 (1999).
53. W.T. Godbey, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 26, 222-223 (1999).
54. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Tracking the Intracellular Path of PEI/DNA Complexes for Gene Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 26, 813-814 (1999).
55. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Synthetic Polymers for Non-Viral Gene Delivery," *Proceed. Asia-Pacific Conf. Med. Biol. Eng.*, 4, 81 (1999).
56. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Polymer Concepts in Tissue Engineering," *Trans. Acad. Dent. Mater.*, 13, 17-22 (1999).
57. W.T. Godbey and A.G. Mikos, "Recent Progress in Poly(Ethylenimine)-Mediated Gene Delivery," *Proceed. Res. Init. Conf. Vasc. Dis.*, 108-111 (2000).
58. G. Gogola, C. Ambrose, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System," *Trans. Orthop. Res. Soc.*, 46, 1084 (2000).
59. J.S. Temenoff and A.G. Mikos, "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," *Proceed. Am. Acad. Orthop. Surg. Ann. Meet.*, 67, 5-6 (2000).
60. W.T. Godbey and A.G. Mikos, "Poly(Ethylenimine) as a Gene Delivery Vehicle and Its Potential for Tissue Engineering," *Abstr. Eur. Symp. Contr. Drug Deliv.*, 6, 33-35 (2000).
61. S. He, M.J. Yaszemski, P.S. Engel, and A.G. Mikos, "Injectable, In Situ Crosslinkable, Biodegradable Poly(Propylene Fumarate) Networks for Orthopaedic Tissue Engineering," *Trans. World Biomater. Congr.*, 6, 203 (2000).

62. W.T. Godbey, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Transfection with Poly(Ethylenimine) Is More Like Hitting Cells with a Bullet than a Sponge," *Trans. World Biomater. Congr.*, 6, 254 (2000).
63. J.E. Babensee, L.V. McIntire, A.G. Mikos, and J. Rodgers, "Exogenous Antigen-Specific Immune Response Upon Biomaterial Contact," *Trans. World Biomater. Congr.*, 6, 399 (2000).
64. S. Jo, A.K. Shung, H. Shin, and A.G. Mikos, "Synthesis and Characterization of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid," *Trans. World Biomater. Congr.*, 6, 547 (2000).
65. S. Jo and A.G. Mikos, "Modification of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid with GRGD Peptide," *Trans. World Biomater. Congr.*, 6, 550 (2000).
66. J. Tessmar, A.G. Mikos, and A. Göpferich, "A New Biodegradable Polymer for the Modification of Surfaces: H₂N-Poly(Ethylene Glycol)-Poly(D,L-Lactic Acid)," *Trans. World Biomater. Congr.*, 6, 595 (2000).
67. R. Bahulekar, Q. Liu, and A.G. Mikos, "Synthesis and Characterization of Hydrogels Containing Sugar-Methacrylate Monomer," *Trans. World Biomater. Congr.*, 6, 1351 (2000).
68. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Non-Viral Gene Delivery Affects Endothelial Cell Function and Viability," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 27, 76-77 (2000).
69. W.T. Godbey, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Gene Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 27, 111-112 (2000).
70. J. Tessmar, A.G. Mikos, and A. Göpferich, "New Biodegradable Polymers for the Development of Biomimetic Biomaterials," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 27, 135-136 (2000).
71. W.T. Godbey and A.G. Mikos, "Non-Viral Gene Delivery Vectors," *Proceed. Intern. Symp. Biomater. Drug Deliv. Syst.*, 66 (2000).
72. J.S. Temenoff and A.G. Mikos, "Injectable Biodegradable Polymers for Tissue Engineering," *Surf. Biomater. Symp. Notebook*, 12-17 (2000).
73. A.G. Mikos, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," *Trans. Soc. Biomater.*, 24, L (2001).
74. M.S. Wolfe, D. Dean, J.E. Chen, S. Han, C. Rimnac, S.A. Goldman, A.I. Caplan, L. Solchaga, and A.G. Mikos, "In Vitro Degradation of Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Scaffolds," *Trans. Soc. Biomater.*, 24, 26 (2001).
75. J.S. Temenoff, R.G. LeBaron, K.A. Athanasiou, and A.G. Mikos, "Novel Laminated PEG-Fumarate Hydrogels for Tissue Engineering of Articular Cartilage," *Trans. Soc. Biomater.*, 24, 139 (2001).
76. S. He, J. Ulrich, R.G. Valenzuela, M. Zobitz, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of Biodegradable Poly(Propylene Fumarate)-Bone Fiber Composites During the Degradation Process," *Trans. Soc. Biomater.*, 24, 149 (2001).
77. M.D. Timmer, S. He, C.G. Ambrose, and A.G. Mikos, "Mechanical Properties of Photo-Initiated, Biodegradable Polymer Networks for Prefabricated Orthopaedic Scaffolds," *Trans. Soc. Biomater.*, 24, 193 (2001).
78. G.N. Bancroft, V.I. Sikavitsas, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," *Trans. Soc. Biomater.*, 24, 562 (2001).
79. J. Tessmar, A.G. Mikos, and A. Göpferich, "Towards the Covalent Attachment of Insulin to Biodegradable Diblock Copolymers," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 28, 5091 (2001).
80. G.N. Bancroft, V.I. Sikavitsas, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Three-Dimensional Culture of Marrow Stromal Osteoblasts on Titanium Fiber Mesh Scaffolds in a Flow Perfusion Bioreactor," *Trans. Orthop. Res. Soc.*, 48, 215 (2002).
81. H. Shin and A.G. Mikos, "Biomimetic Biodegradable Hydrogels Modulating Marrow Stromal Osteoblast Adhesion," *Trans. Orthop. Res. Soc.*, 48, 536 (2002).
82. A.G. Mikos, "Injectable Biodegradable Hydrogels for Drug Delivery and Tissue Engineering," *Trans. Soc. Biomater.*, 25, 68 (2002).
83. J.W. Vehof, J.P. Fisher, D. Dean, P.H. Spauwen, A.G. Mikos, and J.A. Jansen, "Bone Formation in Transforming Growth Factor- β 1-Coated Porous Poly(Propylene Fumarate) Scaffolds," *Trans. Soc. Biomater.*, 25, 146 (2002).
84. K. Tanahashi, S. Jo, and A.G. Mikos, "Synthesis of Injectable, Biodegradable Hydrogels of Poly(Propylene Fumarate-co-Ethylene Glycol) Modified with Agmatine for Enhanced Cell Adhesion," *Trans. Soc. Biomater.*, 25, 152 (2002).

85. F.M. Wale, C.N. Demers, A. Petit, J.S. Temenoff, V. Lim, J. Fisher, D. Zukor, O. Huk, A.G. Mikos, P. Roughley, and J. Antoniou, "Analysis of Poly(Propylene Fumarate-co-Ethylene Glycol) as a Scaffold for Use in Tissue Engineering of Intervertebral Disc: Retention of Collagen and Proteoglycan," *Trans. Soc. Biomater.*, 25, 193 (2002).
86. E. Behraves, K. Zygorakis, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion and Migration on Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Hydrogels with a Covalently Linked GRGDS Peptide Sequence," *Trans. Soc. Biomater.*, 25, 235 (2002).
87. E.S. Steinbis, J.S. Temenoff, and A.G. Mikos, "Effect of Drying History on Swelling Properties of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Guided Tissue Growth in Dental Applications," *Trans. Soc. Biomater.*, 25, 483 (2002).
88. E.L. Hedberg, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of an Osteoinductive Peptide from Injectable, Biodegradable Polymeric Composite Scaffolds for Bone Tissue Engineering," *Trans. Soc. Biomater.*, 25, 498 (2002).
89. A.K. Shung, E. Behraves, S. Jo, and A.G. Mikos, "Characterization of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel Using a Water Soluble Crosslinking System," *Trans. Soc. Biomater.*, 25, 679 (2002).
90. M.N. Cooke, J.P. Fisher, C. Rimnac, D. Dean, and A.G. Mikos, "Control of 3D Biodegradable Scaffold Geometry," *Trans. Soc. Biomater.*, 25, 681 (2002).
91. A.G. Mikos, E.L. Hedberg, S. Jo, F.K. Kasper, H. Shin, and J.S. Temenoff, "Injectable Biodegradable Hydrogels for Tissue Engineering," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 29, 83 (2002).
92. J.S. Temenoff, H. Shin, P.S. Engel, and A.G. Mikos, "Cytotoxicity of Redox Radical Initiators for Encapsulation of Mesenchymal Stem Cells," *Proceed. Eng. Med. Biol. Soc. Biomed. Eng. Soc. Joint Conf.*, 2, 831 (2002).
93. E.L. Hedberg, J.S. Temenoff, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of a Tissue Inducing Peptide from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Orthopaedic Tissue Engineering," *Proceed. Eng. Med. Biol. Soc. Biomed. Eng. Soc. Joint Conf.*, 2, 870 (2002).
94. E. Behraves, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, and A.G. Mikos, "In Vitro Degradation of In Situ Crosslinkable Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Macroporous Hydrogels," *Proceed. Eng. Med. Biol. Soc. Biomed. Eng. Soc. Joint Conf.*, 2, 999 (2002).
95. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, T.L. Sheffield, J.A. Jansen, C.G. Ambrose, and A.G. Mikos, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," *Proceed. Eng. Med. Biol. Soc. Biomed. Eng. Soc. Joint Conf.*, 2, 1151 (2002).
96. J.P. Fisher, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Characterization of Guided Bone Formation by a Biodegradable Tissue Engineering Scaffold in a Healing Tooth Socket of a Rabbit Model," *Proceed. Eng. Med. Biol. Soc. Biomed. Eng. Soc. Joint Conf.*, 2, 1321 (2002).
97. J.S. Blum, A.G. Mikos, and M.A. Barry, "Influence of Osteogenic Supplements on Gene Transfer and Expression in Rat Marrow Stromal Cells by Adenoviral, Retroviral, and Cationic Lipid Vectors for both Reporter and Therapeutic Proteins," *Trans. Orthop. Res. Soc.*, 49, 906 (2003).
98. L.A. Solchaga, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, and Polyester-Based Scaffolds," *Trans. Orthop. Res. Soc.*, 49, 927 (2003).
99. J.S. Temenoff, H. Shin, and A.G. Mikos "Cytotoxicity of Components of Oligo(Poly(Ethylene Glycol) Fumarate)-Based Hydrogels for Encapsulation of Marrow Stromal Cells," *Trans. Soc. Biomater.*, 26, 89 (2003).
100. H. Shin, P.Q. Ruhé, J.A. Jansen, and A.G. Mikos, "In Vivo Bone and Soft Tissue Response to Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Trans. Soc. Biomater.*, 26, 119 (2003).
101. M.E. Gomes, V.I. Sikavitsas, E. Behraves, R.L. Reis, and A.G. Mikos, "Effect of Flow Perfusion on Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured on Starch Based Three-Dimensional Scaffolds," *Trans. Soc. Biomater.*, 26, 190 (2003).
102. V.I. Sikavitsas, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Fluid Shear Forces Mediate the Osteogenic Differentiation of Marrow Stromal Osteoblasts in a Three-Dimensional Perfusion Culture," *Trans. Soc. Biomater.*, 26, 253 (2003).

103. J. van den Dolder, V.I. Sikavitsas, G.N. Bancroft, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "Cell/Titanium Bone Tissue Engineered Constructs Using a Rat Cranial Size Defect Model," *Trans. Soc. Biomater.*, 26, 633 (2003).
104. T.M.G. Chu, C.L. Flanagan, S.J. Hollister, S.E. Feinberg, J.P. Fisher, and A.G. Mikos, "The Mechanical and In Vivo Performance of 3-D Poly(Propylene Fumarate)/Tricalcium Phosphate Scaffolds," *Trans. Soc. Biomater.*, 26, 660 (2003).
105. E.L. Hedberg, H.C. Kroese-Deutman, J.J. Lemoine, C.K. Shih, R.S. Crowther, D.H. Carney, M.A.K. Liebschner, A.G. Mikos, and J.A. Jansen, "In Vivo Osteogenesis in Response to the Controlled Release of TP508 from Biodegradable Polymeric Scaffolds," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 30, 90 (2003).
106. T.A. Holland, Y. Tabata, and A.G. Mikos, "Controlled Release of TGF- β 1 from Gelatin Microparticles Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 30, 789 (2003).
107. H. Shin, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Modulation of Differentiation and Mineralization of Marrow Stromal Cells Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," *Trans. Orthop. Res. Soc.*, 50, 687 (2004).
108. M.A. Wettergreen, J.E. Pan, J.J. Lemoine, A.G. Mikos, and M.A.K. Liebschner, "Modification of Apparent Scaffold Properties Through Porogen Surface to Volume Ratio Manipulation," *Trans. Orthop. Res. Soc.*, 50, 747 (2004).
109. T.A. Holland, Z.S. Patel, Y. Tabata, and A.G. Mikos, "Growth Factor Delivery from Injectable Hydrogel Scaffolds for Tissue Engineering," *Abstr. Eur. Symp. Contr. Drug Deliv.*, 8, 29-30 (2004).
110. J.A. Jansen, J.W.M. Vehof, P.Q. Ruhé, H. Kroeze-Deutman, J.P. Fisher, E.L. Hedberg, and A.G. Mikos, "Growth Factor Loaded Scaffolds for Bone Engineering," *Abstr. Eur. Symp. Contr. Drug Deliv.*, 8, 31-32 (2004).
111. J.P. Fisher, S. Jo, A.G. Mikos, and A.H. Reddi, "Thermoreversible Hydrogel Scaffolds for Articular Cartilage Tissue Engineering," *Trans. World Biomater. Congr.*, 7, 4 (2004).
112. M.E. Gomes, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Expression of Bone Growth Factors by MSCs Cultured on Starch/Poly(ϵ -caprolactone) Scaffolds Using a Flow Perfusion Bioreactor," *Trans. World Biomater. Congr.*, 7, 5 (2004).
113. E.L. Hedberg, C.K. Shih, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, J.A. Jansen, and A.G. Mikos, "In Vitro Degradation of Poly(Propylene Fumarate)-Based Controlled Release Scaffolds," *Trans. World Biomater. Congr.*, 7, 331 (2004).
114. M.E. Gomes, H.L. Holtorf, R.L. Reis, and A.G. Mikos, "Influence of the Porosity of Starch-Based Fiber Meshes on the Proliferation and Osteogenic Differentiation of Marrow Stromal Cells Cultured under Flow Perfusion," *Trans. World Biomater. Congr.*, 7, 376 (2004).
115. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Effect of Dexamethasone on Osteodifferentiation of MSC/Scaffold Constructs under Flow Perfusion," *Trans. World Biomater. Congr.*, 7, 377 (2004).
116. E.L. Hedberg, H.C. Kroese-Deutman, C.K. Shih, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "Controlled Release from Biodegradable Polymeric Scaffolds for Repair of Segmental Bone Defects," *Trans. World Biomater. Congr.*, 7, 556 (2004).
117. T.A. Holland, J.K. Tessmar, Y. Tabata, and A.G. Mikos, "Growth Factor Release from Injectable, Enzymatically-Degradable Hydrogel Composites for Cartilage Tissue Engineering," *Trans. World Biomater. Congr.*, 7, 617 (2004).
118. J.S. Temenoff, H. Park, E. Jabbari, T.L. Sheffield, R.G. LeBaron, C.G. Ambrose, and A.G. Mikos, "Swelling of Fumarate-Based Hydrogels Affects Osteogenic Differentiation of Embedded Marrow Stromal Cells," *Trans. World Biomater. Congr.*, 7, 899 (2004).
119. N. Datta, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "In Vitro Synthesis of Osteoinductive Extracellular Matrix for Bone Tissue Engineering," *Trans. World Biomater. Congr.*, 7, 1016 (2004).
120. J.K. Tessmar, C.R. Rieger, M.A. Burrell, and A.G. Mikos, "Synthesis of Unsaturated Fumarate-Based Macromers and their Crosslinked Hydrogels," *Trans. World Biomater. Congr.*, 7, 1058 (2004).
121. H. Ueda, S. Jo, D.M. Ammon, and A.G. Mikos, "Sustained Release of Fluocinolone Acetonide from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 31, 333 (2004).
122. C.-Y. Lin, R.M. Schek, A.S. Mistry, X. Shih, A.G. Mikos, P.H. Krebsbach, and S.J. Hollister, "Functional Bone Tissue Engineering Using Ex Vivo Gene Therapy and Topology Optimized, Biodegradable Polymer Composite Scaffolds," *Trans. Orthop. Res. Soc.*, 51, 936 (2005).

123. T.A. Holland, E.W.H. Bodde, L.S. Baggett, Y. Tabata, A.G. Mikos, and J.A. Jansen, "Osteochondral Repair in the Rabbit Model Utilizing Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Scaffolds," *Trans. Orthop. Res. Soc.*, **51**, 1365 (2005).
124. M.A. Wettergreen, W. Sun, A.G. Mikos, and M.A.K. Liebschner, "Geometric Characterization of Scaffold Building Blocks for Tissue Engineering," *Trans. Orthop. Res. Soc.*, **51**, 1719 (2005).
125. M.E. Gomes, R.L. Reis, and A.G. Mikos, "Bone Marrow Stromal Cells Cultured on Starch Based Three-Dimensional Scaffolds in a Flow Perfusion Bioreactor: A Promising *In-Vitro* Approach for Obtaining Bone Tissue Substitutes," *Trans. Orthop. Res. Soc.*, **51**, 1743 (2005).
126. T.G. Chu, R.L. Stewart, S.J. Warden, C.H. Turner, and A.G. Mikos, "A Load-Bearing, Biodegradable BMP Carrier for Bone Regeneration in a Segmental Defect," *Trans. Orthop. Res. Soc.*, **51**, 1750 (2005).
127. X. Shi, J. Hudson, P.P. Spicer, R. Krishnamoorti, J.M. Tour, and A.G. Mikos, "Rheological Behavior and Mechanical Reinforcement of Poly(Propylene Fumarate)-Based Single-Walled Carbon Nanotube Composites," *Trans. Soc. Biomater.*, **30**, 66 (2005).
128. H.L. Holtorf, N. Datta, J.A. Jansen, and A.G. Mikos, "Pore Size of Fiber Mesh Scaffolds Affects the Osteoblastic Differentiation of Seeded Marrow Stromal Cells Cultured in a Flow Perfusion Bioreactor," *Trans. Soc. Biomater.*, **30**, 251 (2005).
129. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture Induces the Osteoblastic Differentiation of Marrow Stromal Cell-Scaffold Constructs in the Absence of Dexamethasone," *Trans. Soc. Biomater.*, **30**, 346 (2005).
130. F.K. Kasper, S.K. Seidlits, M.A. Barry, and A.G. Mikos, "In Vitro Release of Plasmid DNA from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **32**, 585 (2005).
131. F.K. Kasper, T. Kushibiki, Y. Kimura, A.G. Mikos, and Y. Tabata, "In Vivo Release of Plasmid DNA from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, **32**, 605 (2005).
132. M.C. Hacker, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Macromers for the Fabrication of Injectable, Calcium-Binding Hydrogels," *Trans. Soc. Biomater.*, **31**, 26 (2006).
133. F.K. Kasper, E. Jerkins, K. Tanahashi, M.A. Barry, Y. Tabata, and A.G. Mikos, "Characterization of DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres *In Vitro*," *Trans. Soc. Biomater.*, **31**, 28 (2006).
134. B. Sitharaman, L.A. Tran, R.D. Bolskar, S.D. Flamm, R. Muthupillai, A.G. Mikos, and L.J. Wilson, "Gd@Carbon Nanostructures as Nanoprobes for Cellular Magnetic Resonance Imaging," *Trans. Soc. Biomater.*, **31**, 72 (2006).
135. J.K. Tessmar, M.A. Burrell, A. Rivelli, A.M. Göpferich, and A.G. Mikos, "Modification of the Release from Oligo(Poly(Ethylene Glycol) Fumarate) Based Hydrogels by Copolymerization with Lipophilic Poly(Propylene Glycol)," *Trans. Control. Rel. Soc.*, **33**, 29 (2006).
136. F.K. Kasper, S. Young, K. Tanahashi, M.A. Barry, Y. Tabata, J.A. Jansen, and A.G. Mikos, "Evaluation of Bone Regeneration by DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres in a Critical-Sized Calvarial Defect," *Trans. Control. Rel. Soc.*, **33**, 525 (2006).
137. Z.S. Patel, Y. Tabata, and A.G. Mikos, "Gelatin Microparticles for the Controlled Release of an Angiogenic and an Osteogenic Growth Factor," *Trans. Control. Rel. Soc.*, **33**, 528 (2006).
138. A. Saraf, M. Hacker, and A.G. Mikos, "Synthesis of a Poly(Ethylenimine) Conjugate of Hyaluronic Acid for Gene Delivery Applications," *Trans. Control. Rel. Soc.*, **33**, 934 (2006).
139. H.-H. Chen, A.G. Mikos, Q.P. Pham, U. Sharma, and Z.-P. Luo, "Finite Element Analyses of Flow Field in Multilayer Nanofiber/Microfiber Scaffolds," *Trans. Orthop. Res. Soc.*, **53**, 1505 (2007).
140. E. Christenson, W. Soofi, N. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," *Trans. Orthop. Res. Soc.*, **53**, 1518 (2007).
141. E.M. Christenson, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "High Porosity Tissue Engineering Scaffolds by Emulsion Templating," *Trans. Soc. Biomater.*, **32**, 114 (2007).
142. S.C.G. Leeuwenburgh, J.A. Jansen, and A.G. Mikos, "Functionalization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels with Finely Dispersed Calcium Phosphate Nanocrystals for Bone-Substituting Purposes," *Trans. Soc. Biomater.*, **32**, 400 (2007).
143. H. Park, J.S. Temenoff, and A.G. Mikos, "In Vitro Chondrogenic Differentiation of Rabbit Marrow Stromal Cells Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Injectable Hydrogel

- Composites," *Trans. Soc. Biomater.*, 32, 401 (2007).
144. X. Shi, B. Sitharaman, Q.P. Pham, J.L. Hudson, L.J. Wilson, J.M. Tour, and A.G. Mikos, "In Vitro Cytotoxicity of Single-Walled Carbon Nanotube/Poly(Propylene Fumarate) Nanocomposites," *Trans. Soc. Biomater.*, 32, 435 (2007).
 145. S.A. Chew, M.C. Hacker, and A.G. Mikos, "Biodegradable Hyperbranched Polycationic Polymers with Varying Hydrophilic Spacer Length for Gene Delivery," *Trans. World Biomater. Congr.*, 8, 1117 (2008).
 146. A.G. Mikos and F.K. Kasper, "Tissue Engineering and Its Future Perspective," *Trans. World Biomater. Congr.*, 8, 1226 (2008).
 147. B. Sitharaman, X. Shi, X.F. Walboomers, H. Liao, V. Cuijpers, L.J. Wilson, A.G. Mikos, and J.A. Jansen, "Ultra-Short Single Walled Carbon Nanotube/Biodegradable Polymer Nanocomposites for Bone Tissue Engineering: Hard and Soft Tissue Responses in a Rabbit Model," *Trans. World Biomater. Congr.*, 8, 1227 (2008).
 148. J. Liao, X. Guo, Q.P. Pham, F.K. Kasper, and A.G. Mikos, "Effect of Transforming Growth Factor- β 1 on Chondrogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Microfiber Scaffolds," *Trans. World Biomater. Congr.*, 8, 1228 (2008).
 149. L. Klouda, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Novel Thermoresponsive, *In Situ* Crosslinkable Hydrogels for Tissue Engineering," *Trans. World Biomater. Congr.*, 8, 1229 (2008).
 150. M. van der Zande, B. Sitharaman, A. Veltien, X.F. Walboomers, J.S. Ananta, L.J. Wilson, A.G. Mikos, A. Heerschap, and J.A. Jansen, "In Vivo MRI Visualization of the Distribution Pattern of Gadolinium Labeled Single Walled Carbon Nanotubes Released from Subcutaneous Implanted Poly(Lactic-co-Glycolic Acid) Scaffolds in Rats," *Trans. World Biomater. Congr.*, 8, 1521 (2008).
 151. S. Danti, D. D'Alessandro, A.S. Mistry, A. Saraf, S. Berrettini, and A.G. Mikos, "Tissue Engineered Constructs as Human Ossicular Chain Replacements," *Trans. World Biomater. Congr.*, 8, 1719 (2008).
 152. A.M. Martins, Q.P. Pham, P.B. Malafaya, R.A. Sousa, M.E. Gomes, F.K. Kasper, R.L. Reis, and A.G. Mikos, "The Role of Lipase and α -Amylase in both the Degradation of Starch/Polycaprolactone Fiber Meshes and the Osteogenic Differentiation of Rat Marrow Stromal Cells," *Trans. World Biomater. Congr.*, 8, 1931 (2008).
 153. P.M. Mountziaris, P.R. Kramer, and A.G. Mikos, "Evaluation of a Microparticle-Based Intra-Articular Controlled Release System in the Rat Temporomandibular Joint," *Trans. Soc. Biomater.*, 33, 185 (2009).
 154. J.D. Kretlow, M.C. Hacker, L. Klouda, B.B. Ma, and A.G. Mikos, "Thermosensitive Polymer Interactions with Ions to Mediate Micelle and Gel Formation," *Trans. Soc. Biomater.*, 33, 229 (2009).
 155. M. Shi, J.D. Kretlow, P. Spicer, A. Nguyen, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Emerging Controlled Release Approaches for Bone Tissue Engineering," *Abstr. Eur. Symp. Contr. Drug Deliv.*, 11, 67 (2010).
 156. K. Kim, A. Lu, R. Breithaupt, D. Dean, A.G. Mikos, and J.P. Fisher, "The Effect of Crosslinking Density and Pore Geometry of Poly(Propylene Fumarate)/Diethyl Fumarate Composite Scaffolds on Osteogenic Signal Expression of Rat Bone Marrow Stromal Cells," *Trans. Soc. Biomater.*, 34, 32 (2010).
 157. M. Shi, J.D. Kretlow, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Gelatin Microparticle-Incorporating Poly(Methyl Methacrylate) Constructs for Craniofacial Tissue Engineering," *Trans. Soc. Biomater.*, 34, 572 (2010).
 158. C. Smid, R. Buchanan, M. Murphy, D. Blashki, D. Fan, E. De Rosa, D.M. Yoon, F.K. Kasper, X. Liu, H. Jones, P. Noble, B. Weiner, P. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti, "An Injectable Scaffold Exhibiting Staggered Bioactive Release through Multi-Functional Components for Bone Fracture Repair," *Trans. Control. Rel. Soc.*, 37, 210 (2010).
 159. M. Shi, J.D. Kretlow, S. Young, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Gelatin Microparticle-Incorporating Poly(Methyl Methacrylate) Constructs for Craniofacial Tissue Engineering," *Trans. Control. Rel. Soc.*, 37, 820 (2010).
 160. A.G. Mikos and J.D. Kretlow, "Bones to Biomaterials and Back Again – 20 Years of Taking Cues from Nature to Engineer Synthetic Polymer Scaffolds," *Trans. Soc. Biomater.*, 35, Founders Award Abstract (2011).
 161. R.M. Buchanan, M.B. Murphy, D.M. Yoon, A.M. Henslee, M. Nair, F.K. Kasper, P.J. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti, "Calcium Alginate Porogens for the Development of an Injectable

- Paste to Treat Traumatic Fractures," *Trans. Soc. Biomater.*, 35, 80 (2011).
162. V.V. Meretoja, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Flow Perfusion Bioreactor for Bone and Cartilage Tissue Engineering," *Trans. Soc. Biomater.*, 35, 406 (2011).
 163. P.P. Spicer, M. Shi, J.D. Kretlow, A.M. Henslee, S. Young, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Antibiotic-Releasing Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Tissue Engineering," *Trans. Control. Rel. Soc.*, 38, 74 (2011).
 164. A.G. Mikos, M.E. Wong, and F.K. Kasper, "Development of Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Tissue Engineering," *Trans. World Biomater. Congr.*, 9, S002c (2012).
 165. H. Wang, L.A. Kinard, Z. Liu, W. Chen, F.K. Kasper, J. Zhou, Q. Lin, C. Duan, Y. Wang, A.G. Mikos, and C. Wang, "Delivery of Induced Pluripotent Stem Cells Derived Cardiomyocytes and bFGF via Injectable, Biodegradable Hydrogels for the Treatment of Myocardial Infarction," *Trans. World Biomater. Congr.*, 9, S124b (2012).
 166. A.A. Appel, J. Larson, S. Somo, P.P. Spicer, F.K. Kasper, A.G. Mikos, M.A. Anastasio, and M.E. Brey, "Three Dimensional Quantitative Imaging of Biomaterials with X-ray Phase Contrast," *Trans. World Biomater. Congr.*, 9, S131a (2012).
 167. A.K. Ekenseair, A.G. Mikos, S.N. Tzouanas, K.W.M. Boere, T.N. Vo, and F.K. Kasper, "Synthesis and Cytocompatibility of Novel Injectable, *In Situ* Hardening Hydrogels Based on Poly(N-Isopropylacrylamide) and Polyamidoamines," *Trans. World Biomater. Congr.*, 9, S167b (2012).
 168. T.N. Vo, A.K. Ekenseair, K.W.M. Boere, F.K. Kasper, and A.G. Mikos "Injectable Thermogelling and Chemically Crosslinked Scaffolds with Hydrolysis-Dependent LCST for Craniofacial Bone Regeneration," *Trans. World Biomater. Congr.*, 9, P-SAT-A-153 (2012).
 169. S. Shah, A.M. Henslee, P.P. Spicer, F.K. Kasper, and A.G. Mikos, "Fabrication of Antibiotic-Loaded Biodegradable Polymer Microspheres for Infection Control," *Trans. World Biomater. Congr.*, 9, P-SAT-C-201 (2012).
 170. P.P. Spicer, A.M. Henslee, L.A. Kinard, B.M. Watson, J.D. Kretlow, K. Bevil, L. Katchee, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Evaluation of Antibiotic-Releasing Porous Polymethylmethacrylate Space Maintainers in an Infected Composite Tissue Defect," *Trans. Control. Rel. Soc.*, 39, 103 (2012).
 171. C.J. Needham, S. Shah, F.K. Kasper, and A.G. Mikos, "Modulation of Polymer/DNA Release from Poly(DL-Lactic-co-Glycolic Acid) Microspheres through Poly(Ethylenimine) Modification and Loading Concentration," *Trans. Soc. Biomater.*, 35, 93 (2013).
 172. E.L.S. Fong, S.-E. Lamhamedi-Cherradi, E. Burdett, V. Ramamoorthy, A.J. Lazar, F.K. Kasper, M.C. Farach-Carson, D. Vishwamitra, E.G. Demicco, B.A. Menegaz, H.M. Amin, J.A. Ludwig, and A.G. Mikos, "Engineering a Three-Dimensional *In Vitro* Model of Bone Sarcoma for Drug-Testing," *Trans. Soc. Biomater.*, 35, 140 (2013).
 173. T.N. Vo, A.K. Ekenseair, P.P. Spicer, B.M. Watson, F.K. Kasper, and A.G. Mikos, "Biocompatibility Evaluation of Poly(N-Isopropylacrylamide)-Based Hydrogels for Craniofacial Bone Regeneration," *Trans. Soc. Biomater.*, 35, 156 (2013).
 174. R.L. Dahlin, M. Ni, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "Dose Response to TGF- β 3 of Co-Cultured Chondrocytes and Mesenchymal Stem Cells on Porous Polymer Scaffolds," *Trans. Soc. Biomater.*, 35, 330 (2013).
 175. E.J. Levorson, O. Hu, F.K. Kasper, and A.G. Mikos, "Devitalized Cell Derived Polymer/Extracellular Matrix Composite Scaffolds for Cartilage Regeneration," *Trans. Soc. Biomater.*, 35, 414 (2013).
 176. S.R. Shah, S. Shah, N. Raindel, A.M. Henslee, P.P. Spicer, F.K. Kasper, and A.G. Mikos, "Antibiotic-Loaded Porous Poly(Methyl Methacrylate) for Space Maintenance and Local Drug Delivery," *Trans. Soc. Biomater.*, 35, 588 (2013).
 177. A.M. Tatara, F.K. Kasper, and A.G. Mikos, "Longevity of Implant-Associated Infectious Biofilms," *Trans. Soc. Biomater.*, 35, 662 (2013).
 178. T.N. Vo, T.-L. Roh, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Promoting Mineralization and Mesenchymal Stem Cell Differentiation in Injectable, Physically and Chemically Gelling Hydrogels for Craniofacial Tissue Engineering," *Trans. Soc. Biomater.*, 36, 19 (2014).
 179. S.N. Tzouanas, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Mesenchymal Stem Cell and Gelatin Microparticle Encapsulation in Thermally and Chemically Gelling Injectable Hydrogels for Tissue Engineering," *Trans. Soc. Biomater.*, 36, 79 (2014).

180. A.M. Tataru, S.R. Shah, D.S. Puperi, B.M. Watson, K.J. Grande-Allen, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Mitigation of Biofilm Formation with an Elastomeric Barrier Membrane System," *Trans. Soc. Biomater.*, **36**, 266 (2014).
181. T.N. Vo, S.R. Shah, S. Lu, E.J. Lee, A.M. Tataru, and A.G. Mikos, "Mineralization and Bone Regeneration of Injectable, Dual-Gelling Hydrogel-Cell Constructs," *Trans. Soc. Biomater.*, **37**, 309 (2015).
182. S.R. Shah, A.M. Tataru, J. Lam, S. Lu, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Microparticle-Based Delivery of Clindamycin for Prevention of Mandibular Infection," *Trans. Control. Rel. Soc.*, **42**, 472 (2015).
183. A.G. Mikos, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," *Trans. World Biomater. Congr.*, **10**, 313.1 (2016).
184. J.E. Trachtenberg, J.K. Placone, B.T. Smith, C.M. Piard, M. Santoro, D.W. Scott, J.P. Fisher, and A.G. Mikos, "Extrusion-Based Printing of Poly(Propylene Fumarate) for Osteochondral Tissue Engineering," *Trans. World Biomater. Congr.*, **10**, 514.3 (2016).
185. S. Shah, A.M. Tataru, M. Santoro, A.M. Henslee, R.E. Guldborg, J.C. Wenke, J.J.J.P. van den Beucken, J.A. Jansen, S.-E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Critical Roles of Clindamycin on Human Mesenchymal Stem Cells *In Vitro* and *In Vivo* Bone Regeneration," *Trans. World Biomater. Congr.*, **10**, P.0791 (2016).
186. A.M. Tataru, E. Watson, T. Satish, D.P. Kontoyiannis, and A.G. Mikos, "Poly(Diol Fumarates); A New Class of Tunable Antimicrobial Polymers," *Trans. World Biomater. Congr.*, **10**, P.2729 (2016).
187. J. Guo, Y. Kim, P. Engel, and A.G. Mikos, "Biodegradable, "Clickable" Poly(Glycolic Acid) Macromers for Hydrogel Functionalization," *Trans. Soc. Biomater.*, **39**, 832 (2018).
188. J. Guo, Y.S. Kim, V. Xie, J. Lam, P. Engel, and A.G. Mikos, "Modular, Click Functionalized Hydrogels for Multilayered Tissue Engineering," *Trans. Soc. Biomater.*, **40**, 85 (2019).
189. M. Bedell, A. Melchiorri, and A.G. Mikos, "Additive Manufacturing of Poly(Methyl Methacrylate) Space Maintainers for Improved Craniofacial Repair," *Trans. Soc. Biomater.*, **40**, 167 (2019).
190. A. Tataru, E. Watson, N. Albert, P. Kontoyiannis, D. Kontoyiannis, and A.G. Mikos, "A Murine Model of Cutaneous Aspergillosis for Evaluation of Biomaterials-Based Local Delivery Therapies," *Trans. Soc. Biomater.*, **40**, 955 (2019).
191. Y.S. Kim, A. Navara, A. Chien, and A.G. Mikos, "Shear-Thinning, Thermally Responsive Poly(N-isopropylacrylamide)-Based Bioink for 3D Bioprinting Applications," *Trans. Soc. Biomater.*, **40**, 1118 (2019).
192. J.L. Guo, A. Li, Y.S. Kim, V.Y. Xie, B.T. Smith, E. Watson, G. Bao, and A.G. Mikos, "Click Functionalized, Tissue-Specific Hydrogels for Osteochondral Tissue Engineering," *Trans. World Biomater. Congr.*, **11**, 3224 (2020).
193. J.L. Guo, L. Diaz-Gomez, B. Wang, and A.G. Mikos, "3D Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering," *Trans. World Biomater. Congr.*, **11**, 3268 (2020).
194. L. Diaz-Gomez, M.E. Elizondo, G.L. Koons, M. Diba, L.K. Chim, A.J. Melchiorri, and A.G. Mikos, "A Biofabrication Method to Incorporate Low Viscosity Bioinks into 3D Printed Tissue Engineering Scaffolds," *Trans. World Biomater. Congr.*, **11**, 3748 (2020).
195. A.A. Brozovich, S. Lenna, F. Paradiso, S. Serpelloni, P. McCulloch, A.G. Mikos, B. Weiner, and F. Taraballi, "Biomimetic Mg-Doped Type I Collagen / Hydroxyapatite Scaffold and Membrane Induces Osteogenesis in Mesenchymal Stem Cells Faster than in 2D Environment," *Trans. Soc. Biomater.*, **41**, 159 (2021).
196. J.L. Guo, L. Diaz-Gomez, V.Y. Xie, S.M. Bittner, E. Jiang, B. Wang, and A.G. Mikos, "3D Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering," *Trans. Soc. Biomater.*, **41**, 167 (2021).
197. G.L. Koons, P.D. Kontoyiannis, M. Diba, L.K. Chim, D.W. Scott, and A.G. Mikos, "Characterization of Degradation and Bioactive Growth Factor Release for 3D Printed Poly(Propylene Fumarate)-Based Constructs," *Trans. Soc. Biomater.*, **41**, 236 (2021).
198. J.L. Guo, Y.S. Kim, G.L. Koons, J. Lam, S. Barrios, A.M. Navara, V.Y. Xie, E. Watson, B.T. Smith, H.A. Pearce, E.A. Orchard, J.J.J.P. van den Beucken, J.A. Jansen, and A.G. Mikos, "Bilayered, Click Biofunctionalized Hydrogels for Osteochondral Repair," *Trans. Soc. Biomater.*, **41**, 368 (2021).
199. H.A. Pearce, J.W.R. Swain, L.H. Victor, K.J. Hogan, E.Y. Jiang, M.L. Bedell, A.M. Navara, A. Farsheed, Y.S. Kim, J.L. Guo, J.D. Hartgerink, K.J. Grande-Allen, and A.G. Mikos, "Thermogelling

- Hydrogel Charge and LCST Influence Cellular Infiltration and Tissue Integration in an *Ex Vivo* Cartilage Explant Model," *Trans. Soc. Biomater.*, 43, 565 (2023).
200. S. Barrios, S. Maksimovic, A.G. Mikos, and E. Dondossola, "Engineered Bone for Preclinical Modeling of Prostate Cancer Metastatic Tumor," *Trans. Soc. Biomater.*, 43, 729 (2023).

Abstracts

1. A.G. Mikos, C.G. Takoudis, and N.A. Peppas, "Modeling of Suspension Copolymerization/Crosslinking of Styrene," *Abstr. AIChE Meeting*, Abstract 48i (November 1984).
2. N.A. Peppas and A.G. Mikos, "Molecular Aspects of Polymer Adhesion on Mucus," *Abstr. ACS*, 190, Abstract INDE-35 (1985).
3. A.G. Mikos, C.G. Takoudis, and N.A. Peppas, "Kinetic Modelling of Copolymerization Crosslinking Reactions," *Abstr. AIChE Meeting*, Abstract 113e (November 1985).
4. N.A. Peppas and A.G. Mikos, "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," *Abstr. AIChE Meeting*, Abstract 125b (November 1985).
5. N.A. Peppas and A.G. Mikos, "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," *Abstr. Eur. Congr. Biomater.*, Abstract 12 (September 1986).
6. N.A. Peppas and A.G. Mikos, "Polymer Microparticles on Biological Surfaces," *Abstr. AIChE Meeting*, Abstract 68h (November 1986).
7. A.G. Mikos and N.A. Peppas, "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," *Abstr. MRS Meeting*, Abstract L3.3 (November 1987).
8. A.G. Mikos and N.A. Peppas, "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," *Abstr. MRS Meeting*, Abstract L8.15 (November 1987).
9. A.G. Mikos and R. Langer, "Preparation and Characterization of Poly(L-Lactic Acid) Foams," *Abstr. AIChE Meeting*, Abstract 246c (November 1990).
10. A.G. Mikos, "Fracture of and Adhesion between Biological and Synthetic Macromolecular Materials," *Abstr. ACS, Coll. Surf. Chem. Div.*, 65, LaMer Lecture (1991).
11. A.G. Mikos, A.M. Whiteman, A.J. Thorsen, J.E. Stein, D. Ingber, J.P. Vacanti, and R. Langer, "Creep Behavior of Poly(Lactic-co-Glycolic Acid) Foams for Liver Regeneration," *Abstr. AIChE Meeting*, Abstract 3f (November 1991).
12. J.E. Stein, A.G. Mikos, G. Sarakinos, J.C. Gilbert, D. Ingber, J.P. Vacanti, and R. Langer, "Polymer Scaffolds for Hepatocyte Transplantation," *Abstr. AIChE Meeting*, Abstract 3g (November 1991).
13. C.A. Vacanti, J.P. Vacanti, L. Cima, A.G. Mikos, and R. Langer, "Synthetic Biodegradable Polymers Can Be Configured to Act as a Template for Cell Transplantation and the Generation of New Cartilage and Bone," *Abstr. AIChE Meeting*, Abstract 3i (November 1991).
14. L.E. Freed, S.B. Weinstock, A.G. Mikos, J.C. Marquis, A. Nohria, A.J. Grodzinsky, and R. Langer, "Chondrocytes Cultured on Synthetic Biodegradable Polymers Grow and Secrete a Cartilage-Like Matrix," *Abstr. AIChE Meeting*, Abstract 3j (November 1991).
15. A.G. Mikos, H.-L. Lai, S.M. Leite, J.A. Tamada, and R. Langer, "Characterization of Degradation of Poly(L-Lactic Acid) Foams," *Abstr. AIChE Meeting*, Abstract 15e (November 1991).
16. A.G. Mikos, D.E. Ingber, J.P. Vacanti, and R. Langer, "Hepatocyte Transplantation with Prevascularized Biodegradable Polymer Foams," *Abstr. HSEMB Confer.*, 10, Abstract 31 (March 1992).
17. A.G. Mikos, "Biodegradable Bioadhesive Systems," *Abstr. Jerusalem Conference Pharmac. Sci. Clinic. Pharmacol.*, 2, Abstract 15c (May 1992).
18. A.G. Mikos, Y. Bao, L.G. Cima, D.E. Ingber, J.P. Vacanti, and R. Langer, "Bonded Poly(Glycolic Acid) Fiber Structures for Cell Transplantation," *Abstr. AIChE Meeting*, Abstract 175b (November 1992).
19. K. Zygorakis and A.G. Mikos, "Discrete Modeling of Surface Erosion of Biodegradable Copolymers," *Abstr. AIChE Meeting*, Abstract 178e (November 1992).
20. A.G. Mikos, "Biodegradable Polymer Scaffolding for Tissue Regeneration and Repair," *Abstr. HSEMB Confer.*, 11, Abstract 76 (February 1993).
21. M.J. Yaszemski, A.G. Mikos, W.C. Hayes, and R. Langer, "A Temporary Replacement for Trabecular Bone: Design, Synthesis, and Characterization of a Degradable Polymeric Biomaterial," *Abstr. AIChE Meeting*, Abstract 119b (November 1993).

22. M.C. Wake, C.W. Patrick, Jr., and A.G. Mikos, "Creation of Vascularized Beds for Cell Transplantation," *Abstr. AIChE Meeting*, Abstract 119c (November 1993).
23. R.G. Payne, A.G. Mikos, and M.J. Yaszemski, "The Influence of Polymer Molecular Weight on Compressive Strength of a Composite for Use in Biodegradable Bone Cement," *Abstr. HSEMB Confer.*, 12, Abstract 60 (February 1994).
24. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Biodegradable Poly(Lactic-co-Glycolic Acid) Scaffolds to Engineer Bone," *Abstr. HSEMB Confer.*, 12, Abstract 97 (February 1994).
25. S.L. Ishaug, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Culture on Biodegradable Polymers as an *In Vitro* Model of Bone Regeneration," *Abstr. HSEMB Confer.*, 12, Abstract 98 (February 1994).
26. G.G. Giordano, D. Lahiri-Munir, S.L. Ishaug, A.G. Mikos, and C.A. Garcia, "RPE Culture on Biodegradable Polymer Substrates," *Invest. Ophthalm. & Visual Sci.*, 35, Abstract 2346-29 (March 1994).
27. A.G. Mikos, "Polymer/Cell Constructs to Engineer Organs," *Abstr. Intern. ITV Confer.*, 5, Abstract 12 (June 1994).
28. A.G. Mikos, "Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone," *Abstr. World Congr. Biomech.*, 2, Abstract II-22b (July 1994).
29. A.G. Mikos, "Bioadhesive Polymers for Controlled Drug Delivery," *Abstr. Surf. Biomater. Symp.*, Abstract 86 (September 1994).
30. G.G. Giordano, D. Lahiri-Munir, R.C. Thomson, S.L. Ishaug, A.G. Mikos, and C.A. Garcia, "Biodegradable Polymer Substrates for Retinal Pigment Epithelium Cell Transplantation," *Annals Biomed. Eng.*, 22, Abstract 131 (October 1994).
31. R.L. Cleek, C. Stine, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Antisense Oligonucleotide Delivery Targeted to Tenascin via Biodegradable Polymer Systems to Inhibit SMC Growth," *Annals Biomed. Eng.*, 22, Abstract 175 (October 1994).
32. M.J. Yaszemski, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "The Uncatalyzed Synthesis of Poly(Propylene Fumarate), Its Strength and Bone Ingrowth Characteristics as a Material for Orthopaedic Use," *Annals Biomed. Eng.*, 22, Abstract 284 (October 1994).
33. R.C. Thomson, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Fabrication of Poly(Lactic-co-Glycolic Acid)/Glass Ceramic Fiber Composite Foams for Orthopaedic Applications," *Annals Biomed. Eng.*, 22, Abstract 287 (October 1994).
34. R.L. Cleek, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Antisense Oligonucleotides Released from a Biodegradable Polymer Matrix Inhibit Smooth Muscle Cell Proliferation," *Abstr. AIChE Meeting*, Abstract 45f (November 1994).
35. S.L. Ishaug, S.A. Hoffman, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Culture on Poly(α -Hydroxy Esters) as an *In Vitro* Model of Bone Engineering," *Abstr. AIChE Meeting*, Abstract 46c (November 1994).
36. H.A. von Recum, R.L. Cleek, S.G. Eskin, and A.G. Mikos, "Modulated Release of Lactic Acid During Poly(L-Lactic Acid) Degradation," *Abstr. AIChE Meeting*, Abstract 204e (November 1994).
37. A.G. Mikos, "Polymer Fabrication," *Abstr. BioEast'95*, Abstract 2E-1 (January 1995).
38. M.J. Yaszemski, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Biomaterial," *Abstr. HSEMB Confer.*, 13, Abstract 58 (February 1995).
39. R.C. Thomson, M.J. Yaszemski, J.M. Powers, T. Harrigan, and A.G. Mikos, "Reinforcement of Poly(α -Hydroxy Ester) Foams for Orthopedic Application Using Hydroxyapatite Short Fibers," *Abstr. HSEMB Confer.*, 13, Abstract 59 (February 1995).
40. S.L. Ishaug, M.J. Yaszemski, R. Bizios, T.B. Aufdemorte, and A.G. Mikos, "Migratory Characteristics of Osteoblast and Bone Cultures on Synthetic Biodegradable Polymers," *Abstr. HSEMB Confer.*, 13, Abstract 60 (February 1995).
41. M.J. Miller, D.P. Goldberg, A.W. Yasko, and A.G. Mikos, "An *In-Vivo* Model for Tissue Engineered Bone Flaps," *Abstr. HSEMB Confer.*, 13, Abstract 61 (February 1995).
42. R.L. Cleek, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Antisense Oligonucleotides Released from a Biodegradable Polymer Matrix Inhibit Smooth Muscle Cell Proliferation," *Abstr. HSEMB Confer.*, 13, Abstract 73 (February 1995).
43. A.G. Mikos, S.L. Ishaug, R.C. Thomson, R.G. Payne, and M.J. Yaszemski, "Engineering Human Trabecular Bone," *Abstr. AAAS Meeting*, Abstract 99 (February 1995).

44. R.C. Thomson, J.H. Colier, A.G. Mikos, C.A. Garcia, and G.G. Giordano, "Physical Characteristics of Biodegradable Polymer Substrates for RPE Cells," *Invest. Ophthalm. & Visual Sci.*, 36, Abstract 1135-83 (March 1995).
45. G.G. Giordano, I.H. Husaini, D. Lahiri-Munir, A.G. Mikos, and C.A. Garcia, "Biodegradable Polymer Films for RPE Cell Transplantation," *Invest. Ophthalm. & Visual Sci.*, 36, Abstract 1138-86 (March 1995).
46. G.M. Crane, S.L. Ishaug, M.J. Miller, A.W. Yasko, T.B. Aufdemorte, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Porous Poly(Lactic-co-Glycolic Acid) Seeded with Stromal Osteoblast Cells," *Annals Biomed. Eng.*, 23, Abstract 218 (October 1995).
47. M.J. Miller, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, and A.G. Mikos, "An *In Vivo* Model for Tissue-Engineered Bone Flaps," *Annals Biomed. Eng.*, 23, Abstract 244 (October 1995).
48. A.G. Mikos, "Engineering Trabecular Bone Using Biodegradable Polymers," *Abstr. Taniguchi Confer.*, 7, Abstract 5-2 (November 1995).
49. A.D. Ouellette, J.-L. Tang, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Targeted Gene Delivery to Endothelial Cells to Prevent Thrombosis and Restenosis," *Abstr. AIChE Meeting*, Abstract 230d (November 1995).
50. A.C. Jen, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Polymer-Matrix/Cell Model for Bone Formation," *Abstr. AIChE Meeting*, Abstract 231d (November 1995).
51. M.J. Miller, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, M.C. Wake, A.G. Mikos, and M.J. Yaszemski, "Prefabricated Bone Flaps in Sheep," *Abstr. Am. Soc. Reconstr. Microsurg.*, 11, Abstract 39 (January 1996).
52. G.M. Crane, S.L. Ishaug, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Bone Formation Using Biodegradable Polymer/Stromal Osteoblast Constructs," *Abstr. Keystone Symposium on Tissue Engineering*, Abstract 104 (January 1996).
53. M.J. Yaszemski and A.G. Mikos, "Degradable Polymers with Osteoblast Transplantation as Strategies for Bone Tissue Engineering," *Cytotechnology*, 17, Abstract 11 (January 1996).
54. A.D. Ouellette, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Synthesis and Characterization of a Poly(L-lysine)/Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," *Abstr. HSEMB Confer.*, 14, Abstract 37 (February 1996).
55. S.J. Peter, P.A. Engel, L.B. Alemany, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Synthesis and Characterization of an Osteoinductive, Injectable, Biodegradable Bone Cement," *Abstr. HSEMB Confer.*, 14, Abstract 39 (February 1996).
56. M.C. Wake, P.K. Gupta, and A.G. Mikos, "Fabrication of Pliable Biodegradable Polymer Foams to Engineer Soft Tissues," *Abstr. HSEMB Confer.*, 14, Abstract 40 (February 1996).
57. S.L. Ishaug, G.M. Crane, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Calvaria Osteoblast Culture in Biodegradable Polymer Scaffolds," *Abstr. HSEMB Confer.*, 14, Abstract 43 (February 1996).
58. A.C. Jen, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," *Abstr. HSEMB Confer.*, 14, Abstract 44 (February 1996).
59. E.K. Beahm, R.C. Thomson, M.J. Yaszemski, A.G. Mikos, and M.J. Miller, "Guided Bone Growth in Sheep," *Abstr. HSEMB Confer.*, 14, Abstract 45 (February 1996).
60. S.L. Ishaug, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Stromal Osteoblasts Cultured in Biodegradable Polymer Foams," *Abstr. HSEMB Confer.*, 14, Abstract 107 (February 1996).
61. L.J. Suggs, M.J. Yaszemski, K.K. Wu, and A.G. Mikos, "The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(Propylene Fumarate) and Poly(ethylene glycol)," *Abstr. HSEMB Confer.*, 14, Abstract 108 (February 1996).
62. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. MRS Meeting*, Abstract Y1.9 (April 1996).
63. L. Lu, R.C. Thomson, A.G. Mikos, R.C. Hunt, G.G. Giordano, C.A. Garcia, and D. Lahiri-Munir, "Human RPE Like Cell Culture on Biodegradable Polymer Substrates," *Invest. Ophthalm. & Visual Sci.*, 37, Abstract 467-B379 (February 1996).
64. A.G. Mikos, "Osteoblast Transplantation and Bone Tissue Engineering," *Exp. Clin. Endocrinol. Diabetes*, 104 (3), Abstract L28 (June 1996).
65. A.C. Jen, A.G. Mikos, J. Mayer, and E. Wintermantel, "Biocompatible Fiber-Reinforced Composites for Culturing Osteoblasts," *Annals Biomed. Eng.*, 24, Abstract 453 (October 1996).

66. J.A. Nolley, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Degradation Study of a Poly(Propylene Fumarate) Based Biodegradable Bone Cement," *Abstr. TES Meeting*, Abstract 10 (December 1996).
67. A.W. Yasko, S.L. Ishaug-Riley, G.M. Crane, D.A. Ray, and A.G. Mikos, "Orthotopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," *Abstr. TES Meeting*, Abstract 19 (December 1996).
68. M.J. Miller, A.G. Mikos, M.A. Schusterman, and L.V. McIntire, "The Evolution of a Strategy for Progress in Tissue Engineering," *Abstr. TES Meeting*, Abstract 48 (December 1996).
69. G.R.D. Evans, K. Brandt, A.G. Mikos, E. Peden, G.M. Crane, and S.L. Ishaug-Riley, "Biodegradable Tissue Engineered Polymer Nerve Conduits: Their Use as Scaffold in Peripheral Nerve Regeneration," *Abstr. TES Meeting*, Abstract 95 (December 1996).
70. D.J. Kim, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Osteoblastic Cellular Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," *Abstr. HSEMB Confer.*, 15, Abstract 92 (February 1997).
71. M.S. Widmer, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture of Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," *Abstr. HSEMB Confer.*, 15, Abstract 116 (February 1997).
72. G.R.D. Evans, K. Brandt, M.C. Wake, P. Gupta, T. Savel, M.S. Widmer, C.W. Patrick, Jr., and A.G. Mikos, "Tissue Engineered Nerve Conduits: The Use of Biodegradable Polymer Scaffolds in Peripheral Nerve Regeneration. A Preliminary Report," *Abstr. HSEMB Confer.*, 15, Abstract 117 (February 1997).
73. R.L. Cleek, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "bFGF Antibody Released from Biodegradable Polymer Microparticles Inhibits bFGF-Stimulated Smooth Muscle Cell Proliferation," *Abstr. HSEMB Confer.*, 15, Abstract 159 (February 1997).
74. L. Lu, C.A. Garcia, and A.G. Mikos, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Synthetic Biodegradable Polymers," *Abstr. HSEMB Confer.*, 15, Abstract 185 (February 1997).
75. A.G. Mikos, S.L. Riley, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.W. Yasko, "Cell Based Delivery Systems for Bone Growth Factors," *Abstr. Intern. Symp. Rec. Adv. Drug Deliv. Syst.*, 8, pp. 27-28 (February 1997).
76. M. Smith, M.J. Miller, G.M. Crane, A. Khoo, A. Gurlek, and A.G. Mikos, "Cranial Defect Repair with Osteoblast Transplantation," *Abstr. Plast. Surg. Res. Counc.*, 42, Abstract 93 (February 1997).
77. L. Lu, A.G. Mikos, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," *Invest. Ophthalm. & Visual Sci.*, 38, Abstract 1566-B359 (March 1997).
78. L. Lu, A.G. Mikos, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," *Abstr. ACS*, 213, Abstract COLL-297 (April 1997).
79. L. Lu, C.A. Garcia, and A.G. Mikos, "Retinal Pigment Epithelium Tissue Engineering," *Artif. Organs*, 21, Abstract 78 (June 1997).
80. A.G. Mikos, "Polymeric Delivery Systems for Antisense Oligonucleotides," *Abstr. Whitaker Found. Biomed. Eng. Res. Conf.*, Abstract 45 (July 1997).
81. A.G. Mikos, S.L. Riley, R.C. Thomson, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, and M.J. Yaszemski, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," *Abstr. Smith & Nephew Intern. Symp. Adv. Tissue Eng. Biomater.*, 1, Abstract S13 (July 1997).
82. G.M. Crane, M. Smith, A. Gurlek, A.K.M. Khoo, M.J. Miller, and A.G. Mikos, "Rat Cranial Defect Repair by Marrow Stromal Osteoblast Transplantation," *Abstr. Smith & Nephew Intern. Symp. Adv. Tissue Eng. Biomater.*, 1, Abstract S19 (July 1997).
83. K. Brandt, G.R.D. Evans, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nabawi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Using Biodegradable PLGA Conduits," *Abstr. Smith & Nephew Intern. Symp. Adv. Tissue Eng. Biomater.*, 1, Abstract P2 (July 1997).
84. E. Yuksel, R. Cleek, J. Jensen, A. Weinfeld, A.G. Mikos, S. Shenaq, and M. Spira, "Delivery of Insulin, IGF-1, bFGF and VEGF in PLGA/PEG Microparticles to Augment Adiposofascial Flaps," *Annals Biomed. Eng.*, 25, Abstract 17 (October 1997).
85. L.J. Suggs, R.S. Krishnan, S.J. Peter, and A.G. Mikos, "In Vitro Degradation of a Crosslinked Poly(Ethylene Glycol) Copolyester," *Annals Biomed. Eng.*, 25, Abstract 34 (October 1997).

86. M.J. Miller, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gurlek, and A.G. Mikos, "Vascularized Tissue Scaffold Apparatus for Guided Tissue Growth," *Annals Biomed. Eng.*, 25, Abstract 142 (October 1997).
87. G.R.D. Evans, K. Brandt, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nawabi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Conduits: Their Use in Peripheral Nerve Surgery," *Annals Biomed. Eng.*, 25, Abstract 243 (October 1997).
88. S.J. Peter, D.J. Kim, and A.G. Mikos, "Three-Dimensional Bone Formation in Injectable, Biodegradable Polymer Scaffolds," *Annals Biomed. Eng.*, 25, Abstract 252 (October 1997).
89. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," *Abstr. HSEMB Confer.*, 16, Abstract 32 (April 1998).
90. G.R.D. Evans, K. Brandt, M.S. Widmer, R.K. Meszlenyi, J. Hodges, P.K. Gupta, J. Williams, A. Gürlek, R. Lohman, C.W. Patrick, and A.G. Mikos, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds for Peripheral Nerve Regeneration," *Abstr. HSEMB Confer.*, 16, Abstract 44 (April 1998).
91. M.J. Miller, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gürlek, and A.G. Mikos, "In Vivo Fabrication of Vascularized Tissue Scaffolds," *Abstr. HSEMB Confer.*, 16, Abstract 46 (April 1998).
92. C.R. Liang, S.J. Peter, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," *Abstr. HSEMB Confer.*, 16, Abstract 47 (April 1998).
93. G. Liu, S.G. Eskin, and A.G. Mikos, "Basic Fibroblast Growth Factor-Stimulated Adventitial Fibroblast Migration Due to $\beta 3$ Integrin Regulation," *Abstr. HSEMB Confer.*, 16, Abstract 143 (April 1998).
94. G. Liu, S.G. Eskin, and A.G. Mikos, "Effects of Growth Factors on the Migration and Proliferation of Vascular Adventitial Fibroblasts," *FASEB J.*, 12, Abstract 605 (April 1998).
95. L. Lu, R. Kapur, C.A. Garcia, and A.G. Mikos, "Morphological Study of a Human RPE Cell Line Cultured on Patterned Biodegradable Polymer Substrates," *Invest. Ophthalm. & Visual Sci.*, 39, Abstract 463-B386 (March 1998).
96. L. Lu, C.A. Garcia, and A.G. Mikos, "Tissue Engineering of Retinal Pigment Epithelium Using Thin Poly(DL-Lactic-co-Glycolic Acid) Films," *Annals Biomed. Eng.*, 26, Abstract TE.37 (October 1998).
97. S.J. Peter, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Engineering the Osteoblastic Phenotype of Marrow-Derived Cells Using Cell Culture Supplements," *Annals Biomed. Eng.*, 26, Abstract TE.52 (October 1998).
98. J.E. Babensee, L.V. McIntire, A.G. Mikos, and C.W. Smith, "Leukocyte Response to Biomaterial Implantation - Role of Complement Using Mouse Models," *Abstr. AIChE Meeting*, Abstract 198f (November 1998).
99. L. Lu, C.A. Garcia, and A.G. Mikos, "In Vitro Degradation of Thin Poly(DL-Lactic-co-Glycolic Acid) Films," *Abstr. AIChE Meeting*, Abstract 199e (November 1998).
100. L. Lu, R. Bizios, C.A. Garcia, A.G. Mikos, and L.C. Kam, "Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces," *Abstr. AIChE Meeting*, Abstract 269c (November 1998).
101. A.S. Goldstein, V. Liu, and A.G. Mikos, "Enhanced Growth of Osteoblastic Cells in Porous Scaffolds by Forced Convection," *Abstr. AIChE Meeting*, Abstract 269h (November 1998).
102. G. Liu, S.G. Eskin, and A.G. Mikos, "Basic FGF Directed Migration of Vascular Adventitial Fibroblasts Via Integrin Regulation," *Abstr. AIChE Meeting*, Abstract 276e (November 1998).
103. M.C. Wake, P.D. Gerecht, L. Lu, and A.G. Mikos, "Biodegradable Particulate Polymer Effects on Marrow Stromal Osteoblasts *In Vitro*," *Tissue Eng.*, 4, Abstract O-5 (December 1998).
104. M.B. Schulz, A. Göpferich, A.S. Goldstein, and A.G. Mikos, "PEG-PLA Diblock Copolymers for Tissue Engineering of Bone," *Tissue Eng.*, 4, Abstract O-28 (December 1998).
105. S. Katz, G.R.D. Evans, K. Brandt, P. Chauvin, L. Otto, R. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C. Patrick, "Bioactive, Poly(L-Lactic Acid) Conduits for Peripheral Nerve Regeneration," *Tissue Eng.*, 4, Abstract O-38 (December 1998).
106. G.N. Stamatas, L. Lu, and A.G. Mikos, "Transforming Growth Factor- $\beta 1$ (TGF- $\beta 1$) Release Studies from Biodegradable Poly(Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) (PLGA/PEG) Microparticles," *Tissue Eng.*, 4, Abstract P-19 (December 1998).
107. A.S. Goldstein, G. Zhu, and A.G. Mikos, "Enhancement of Cellularity in Biodegradable Polymer Foams *In Vitro*," *Tissue Eng.*, 4, Abstract P-28 (December 1998).
108. S.-L. He and A.G. Mikos, "Injectable, *In Situ* Crosslinkable Biodegradable Orthopaedic Scaffolds Based on Poly(Propylene Fumarate) and Degradable Crosslinking Agents," *Tissue Eng.*, 4, Abstract P-29 (December 1998).

109. R.G. Payne, S.A. Sivaram, J.E. Babensee, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres," *Tissue Eng.*, **4**, Abstract P-31 (December 1998).
110. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "New Strategies for Bone Tissue Engineering," *Abstr. Intern. Workshop Calcif. Tissues*, **11**, Abstract 158 (February 1999).
111. G.R.D. Evans, K. Brandt, S. Katz, P. Chauvin, L. Otto, M. Bogle, R.K. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C.W. Patrick, "The Utilization of Schwann Cells in Poly(L-Lactic Acid) Conduits for Nerve Regeneration," *Abstr. HSEMB Confer.*, **17**, Abstract 10 (February 1999).
112. W.T. Godbey, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," *Abstr. HSEMB Confer.*, **17**, Abstract 120 (February 1999).
113. C.G. Ambrose, G.R. Gogola, T. Clyburn, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System for Osteomyelitis," *Abstr. HSEMB Confer.*, **17**, Abstract 136 (February 1999).
114. A.G. Mikos, "Bone Repair by Tissue Engineering," *In Vitro Cell. Develop. Biol.*, **35**, Abstract V-6 (June 1999).
115. E. Behravesh and A.G. Mikos, "Adhesion and Differentiation of Marrow Stromal Osteoblasts on Synthetic Biodegradable Hydrogels," *Abstr. AIChE Meeting*, Abstract 183c (October 1999).
116. R. Bizios, L. Lu, A.G. Mikos, K. Nyalakonda, and A. Göpferich, "Novel Micropatterned Surfaces Fabricated from Synthetic Biodegradable Polymers for Retinal Pigment Epithelium Cell Culture," *Abstr. AIChE Meeting*, Abstract 183f (October 1999).
117. A.G. Mikos and A.K. Shung, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Use in Cardiovascular Applications," *Abstr. AIChE Meeting*, Abstract 261g (October 1999).
118. A.I. Caplan, A.S. Goldstein, M. Gustin, and A.G. Mikos, "Osteoblastic Cell Growth and Function in PLGA/Ceramic Foams," *Abstr. AIChE Meeting*, Abstract 261j (October 1999).
119. W.T. Godbey, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine) Affords Two Types of Protection Against DNA Degradation," *Abstr. AIChE Meeting*, Abstract 271d (October 1999).
120. M.A. Barry, J.S. Blum, and A.G. Mikos, "Gene Therapy for Bone Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 271i (October 1999).
121. A.S. Goldstein, T.M. Juarez, C.D. Helmke, M.C. Gustin, and A.G. Mikos, "Effect of Convection on Osteoblastic Cell Proliferation and Function in Porous Scaffolds," *Cells Tissues Organs*, **166**, Abstract A507 (November 1999).
122. E. Behravesh, T.M. Juarez, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion on Poly(Propylene Fumarate) Based Hydrogels," *Abstr. HSEMB Confer.*, **18**, Abstract 48 (February 2000).
123. S. Jo and A.G. Mikos, "Modification of Poly(Ethylene Glycol)-Tethered Poly(Propylene-co-Fumarate) with RGD Peptide," *Abstr. HSEMB Confer.*, **18**, Abstract 73 (February 2000).
124. A.K. Shung and A.G. Mikos, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Cardiovascular Applications," *Abstr. HSEMB Confer.*, **18**, Abstract 76 (February 2000).
125. M.D. Timmer, S. He, A.G. Mikos, and C.G. Ambrose, "Investigation of a Poly(Propylene Fumarate)-Based Polymer for Bioresorbable Interbody Fusion Cage," *Abstr. HSEMB Confer.*, **18**, Abstract 152 (February 2000).
126. J.S. Blum, M.A. Barry, and A.G. Mikos, "Gene Therapy in Bone Tissue Engineering," *Abstr. HSEMB Confer.*, **18**, Abstract 168 (February 2000).
127. W.T. Godbey, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Non-Viral Gene Delivery," *Abstr. HSEMB Confer.*, **18**, Abstract 170 (February 2000).
128. J.S. Blum, E.A. Davis, R.H. Li, M.A. Barry, and A.G. Mikos, "A New *In Vitro* Assay for the Detection of rhBMP-2 Produced by Genetically Modified Cells," *Abstr. Intern. Confer. Bone Morphogen. Prot.*, **3**, Abstract 90 (June 2000).
129. L. Lu, S.J. Peter, G.N. Stamatias, D.J. Kim, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Controlled Release of TGF- β 1 from Biodegradable Polymer Microparticles and Its Effects on Marrow Stromal Osteoblast Function," *Abstr. Intern. Confer. Bone Morphogen. Prot.*, **3**, Abstract 119 (June 2000).
130. A.G. Mikos, "Present and Future Status of Tissue/Organ Bioengineering: An Approach to the 21st Century Medicine," *Drug Deliv. Syst.*, **15**, Abstract II-SL-1 (July 2000).

131. A.G. Mikos, "Engineering Human Tissue: Challenges and Opportunities," *Abstr. Res. Counc. Meet. Japan Soc. Plast. Reconstr. Surg.*, 9, Abstract 35 (October 2000).
132. A.G. Mikos, "Fabrication of Biodegradable Polymer Scaffolds for Tissue Engineering," *Abstr. Res. Counc. Meet. Japan Soc. Plast. Reconstr. Surg., Satell. Symp. Regener. Med.*, Abstract 2 (October 2000).
133. J.P. Fisher, T.A. Holland, P.S. Engel, and A.G. Mikos, "Preparation and Characterization of Photocrosslinked Poly(Propylene Fumarate) for Orthopaedic Applications," *Abstr. AIChE Meeting*, Abstract 198g (November 2000).
134. A.G. Mikos, "Engineering Human Tissue," *Abstr. AIChE Meeting*, Abstract 362d (November 2000).
135. V.I. Sikavitsas, G.N. Bancroft, and A.G. Mikos, "Bioreactor Design for Three-Dimensional Cell-Polymer Constructs in Bone Tissue Engineering," *Abstr. Intern. Symp. Tissue Eng. Therap. Use*, 5, Abstract 19 (November 2000).
136. J.S. Temenoff, S. Jo, H.-S. Shin, K.A. Athanasiou, R.G. LeBaron, and A.G. Mikos, "Novel Injectable Poly(Ethylene Glycol) Fumarate Hydrogels for Cartilage Tissue Engineering," *Tissue Eng.*, 6, Abstract O-31 (December 2000).
137. G.N. Bancroft, V.I. Sikavitsas, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," *Tissue Eng.*, 6, Abstract P-32 (December 2000).
138. J.P. Fisher, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "The *In Vivo* Biocompatibility of Poly(Propylene Fumarate) Scaffolds," *Abstr. HSEMB Confer.*, 19, Abstract 112 (February 2001).
139. E.L. Hedberg and A.G. Mikos, "Controlled Release of Osteoinductive Factors from Injectable, Biodegradable Polymeric Composites," *Abstr. HSEMB Confer.*, 19, Abstract 130 (February 2001).
140. J.S. Blum, R.H. Li, A.G. Mikos, and M.A. Barry, "An Optimized Method for the Chemiluminescent Detection of Alkaline Phosphatase Levels during Osteodifferentiation by Bone Morphogenetic Protein 2," *Abstr. HSEMB Confer.*, 19, Abstract 132 (February 2001).
141. A.G. Mikos, "Injectable Biodegradable Polymers for Orthopaedic Tissue Engineering," *Abstr. Eng. Tissue Growth Intern. Confer. Exp.*, Abstract 7 (March 2001).
142. A.G. Mikos, S. Jo, H. Shin, and J.S. Temenoff, "Injectable Gels for Dental Tissue Engineering," *Abstr. BECON Symp.*, 4, Abstract 23 (June 2001).
143. K. Tanahashi and A.G. Mikos, "Cell Adhesion on Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogel," *Annals Biomed. Eng.*, 29, Abstract 12.1.6 (October 2001).
144. J.P. Fisher, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "An *In Vivo* Study of Poly(Propylene Fumarate) Scaffolds: Tissue Response and Bone Formation," *Annals Biomed. Eng.*, 29, Abstract 12.3.6 (October 2001).
145. J.S. Temenoff, V.I. Sikavitsas, and A.G. Mikos, "Novel Injectable Hydrogels for Cartilage Tissue Engineering," *Abstr. NATO Adv. Study Inst. Polym. Based Syst. Tissue Eng. Replac. Regener.*, Abstract O2-15 (October 2001).
146. H.L. Holtorf, S. Jo, and A.G. Mikos, "Development of a Novel Biodegradable Cationic Polymer for Nonviral Gene Delivery," *Abstr. AIChE Meeting*, Abstract 43d (November 2001).
147. J.P. Fisher, D. Dean, and A.G. Mikos, "Photocrosslinking of Diethyl Fumarate and Poly(Propylene Fumarate) for the Engineering of Bone Grafts," *Abstr. AIChE Meeting*, Abstract 237f (November 2001).
148. M.D. Timmer, C.G. Ambrose, and A.G. Mikos, "Quantification of the Crosslinking Density of Poly(Propylene Fumarate)-Based Biodegradable Networks," *Abstr. AIChE Meeting*, Abstract 237i (November 2001).
149. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Culture of Bone Marrow Stromal Cells Seeded on Three-Dimensional Porous Scaffolds in a Flow Perfusion Bioreactor," *Abstr. AIChE Meeting*, Abstract 320g (November 2001).
150. A.G. Mikos, E.L. Hedberg, F.K. Kasper, J.S. Temenoff, "Injectable, *In Situ* Crosslinkable, Biodegradable Polymers for Peptide and Gene Delivery," *Abstr. AAPS Workshop* (February 2002).
151. A.G. Mikos, "Engineering Human Tissues," *Abstr. Found. Res. Technol. Hellas Confer.*, 6, Abstract 16 (March 2002).
152. A.G. Mikos, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," *Abstr. New Frontiers Confer. Univ. Delaware*, Abstract 33 (March 2002).
153. A.G. Mikos, "Injectable Biomimetic Hydrogels for Tissue Engineering," *Abstr. Eng. Tissue Growth Intern. Confer. Exp.*, Abstract 10 (March 2002).

154. A.G. Mikos, "Biomimetic Polymer Scaffolds for Bone Tissue Engineering," *Abstr. Exp. Biol.*, Abstract 670 (April 2002).
155. A.G. Mikos, "The Added Value of Synthetic Polymers in Tissue Engineering," *Aegean Confer. Ser.*, 4, Abstract 23 (May 2002).
156. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," *Aegean Confer. Ser.*, 4, Abstract 54 (May 2002).
157. L.A. Solchaga, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, PLGA- and PLLA-Based Scaffolds: A Comparative Study," *Abstr. Intern. Cart. Rep. Soc. Symp.*, 4, Abstract 273 (June 2002).
158. A.G. Mikos, "Bioreactor Technology for Bone Tissue Engineering," *Abstr. Smith & Nephew Intern. Symp.*, 3, Abstract O1-6 (October 2002).
159. A.G. Mikos, "Controlled Release of Osteogenic Molecules from Polymeric Carriers," *Abstr. Intern. Confer. Bone Morphogen. Prot.*, 4, Abstract 83 (October 2002).
160. J.P. Fisher, Z. Lalani, C.M. Bossano, E.M. Brey, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Evaluation of Bone Formation within Biodegradable Tissue Engineering Scaffolds," *Abstr. Intern. Confer. Bone Morphogen. Prot.*, 4, Abstract 98 (October 2002).
161. J.P. Fisher, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Characterization of Bone Formation within a Biodegradable Tissue Engineering Scaffold Using Immunohistochemical Techniques," *Abstr. AIChE Meeting*, Abstract 189g (November 2002).
162. E. Jabbari, E. Behraves, and A.G. Mikos, "Development of a Biodegradable Redox Initiated Oligo(PEG Fumarate)-Based Hydrogel as an *In Situ* Crosslinkable Cell Carrier," *Abstr. AIChE Meeting*, Abstract 189h (November 2002).
163. E. Jabbari, F.K. Kasper, and A.G. Mikos, "Controlled Release of Plasmid DNA from Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Microspheres," *Abstr. AIChE Meeting*, Abstract 305a (November 2002).
164. V.I. Sikavitsas, G.N. Bancroft, J.A. Jansen, and A.G. Mikos, "Effect of Shear Forces on the Osteogenic Differentiation of Marrow Stromal Cells," *Abstr. AIChE Meeting*, Abstract 341g (November 2002).
165. A.G. Mikos, "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," *Abstr. Intern. Bone Fluid Flow Workshop*, 5, Abstract 14 (September 2003).
166. J.S. Temenoff, H. Park, E. Jabbari, and A.G. Mikos, "Bone Formation from Marrow Stromal Cells Encapsulated in Oligo(PEG Fumarate) Hydrogels," *Abstr. BMES Meeting*, Abstract 2.6.2 (October 2003).
167. E.L. Hedberg, C. Shih, L.A. Solchaga, A.I. Caplan, and A.G. Mikos, "Controlled Release of Hyaluronic Acid Oligomers from Biodegradable Polymeric Microparticles," *Abstr. BMES Meeting*, Abstract 11.2.3 (October 2003).
168. B. Bucklen, M.A. Wettergreen, A.G. Mikos, and M.A. Liebschner, "Scaffold Design Using Model-Based Mechanotransduction Principles," *Abstr. BMES Meeting*, Abstract 11.2.4 (October 2003).
169. V.I. Sikavitsas, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Bone Tissue Engineering by Cell and *In Vitro* Generated Extracellular Matrix Transplantation," *Abstr. BMES Meeting*, Abstract 2.P1.13 (October 2003).
170. H.L. Holtorf, N. Datta, J.A. Jansen, and A.G. Mikos, "Effect of Scaffold Pore Size on Marrow Stromal Cell Differentiation in a Flow Perfusion Bioreactor," *Abstr. BMES Meeting*, Abstract 2.P1.57 (October 2003).
171. T.A. Holland, J.K. Tessmar, Y. Tabata, and A.G. Mikos, "Sustained Release of Transforming Growth Factor- β 1 from Novel Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Encapsulating Gelatin Microparticles in Conditions that Model the Cartilage Wound Healing Environment," *Abstr. AIChE Meeting*, Abstract 6e (November 2003).
172. G. Cheng, H. Shin, A.G. Mikos, and K. Zygorakis, "3-Dimensional Transmigration of Human Dermal Fibroblasts from Collagen Gels to Biomimetic Hydrogels Modified with Peptide Sequences," *Abstr. AIChE Meeting*, Abstract 107cy (November 2003).
173. R.A. Horch, M.D. Timmer, A.R. Barron, and A.G. Mikos, "Reinforcement of Poly(Propylene Fumarate)-Based Networks with Surface Modified Alumoxane Nanoparticles for Bone Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 138b (November 2003).

174. A.G. Mikos, "Synthetic Polymers for Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 368e (November 2003).
175. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Bone Regeneration by Marrow Stromal Osteoblast Transplantation," *Abstr. AIChE Meeting*, Abstract 383d (November 2003).
176. J.P. Fisher, A.G. Mikos, and A.H. Reddi, "Hydrogel Scaffolds for Tissue Engineering of Articular Cartilage," *Abstr. AIChE Meeting*, Abstract 386b (November 2003).
177. A.G. Mikos, "Recent Progress in Tissue Engineering Using Biodegradable Polymers," *Abstr. Intern. Conf. Epithelial Technol. Tissue Eng.*, 1, Abstract 1 (December 2003).
178. P.Q. Ruhé, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "rhBMP-2 Release from Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," *Abstr. TESI Intern. Confer. Exp.*, 6, Abstract 23.3 (December 2003).
179. M.S. Wolfe, D. Dean, A. Totonchi, J. Chen, Y. Ahmad, C. Rimnac, and A.G. Mikos, "Osseointegration of Porous Poly(Propylene Fumarate) Scaffolds Treated with Transforming Growth Factor- β 2 in a Critical Size Rabbit Skull Defect," *Abstr. TESI Intern. Confer. Exp.*, 6, Abstract 29.1 (December 2003).
180. G. Cheng, H. Shin, A.G. Mikos, and K. Zygourakis, "Expansion of Marrow Stromal Osteoblast Megacolony on Biomimetic Hydrogels: Interpreting and Evaluating the Assay Data," *Abstr. HSEMB Confer.*, 21, Abstract 115 (February 2004).
181. X. Shi, J. Hudson, R.A. Horch, J.M. Tour, R. Krishnamoorti, and A.G. Mikos, "Carbon Nanotube/Poly(Propylene Fumarate) Composites for Bone Tissue Engineering," *Abstr. HSEMB Confer.*, 21, Abstract 121 (February 2004).
182. P.Q. Ruhé, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Biocompatibility and Degradation of Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," *Abstr. IADR Meeting*, Abstract 282 (March 2004).
183. H. Shin, G.C. Bowden, and A.G. Mikos, "Osteogenic Differentiation of Marrow Stromal Cells Cultured on Biomimetic Hydrogels," *Abstr. IADR Meeting*, Abstract 910 (March 2004).
184. A.G. Mikos, "Synthetic Polymers for Tissue Engineering," *Abstr. ACS*, 227, Abstract BMGT-2 (March 2004).
185. M.E. Gomes, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Bone Growth Factors Expressed by Marrow Stromal Cells Cultured on Starch/Polycaprolactone Fiber Mesh Scaffolds under Flow Perfusion Conditions," *Abstr. TESI/ETES Joint Meeting*, Abstract 8 (October 2004).
186. H. Park, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogels for TGF- β 1 and Chondrocyte Delivery for Cartilage Tissue Engineering," *Abstr. TESI/ETES Joint Meeting*, Abstract 102 (October 2004).
187. M. Wettergreen, B. Bucklen, A.G. Mikos, and M.A.K. Liebschner, "Tailoring the Mechanical Environment of Scaffolds with Computer Aided Design and Rapid Prototyping," *Abstr. BMES Meeting*, Abstract 295 (October 2004).
188. H. Castano, J.F. Alvarez-Barreto, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas, "The Ability of Marrow Stromal Cells to Regenerate Bone Is Controlled by their Differentiation Stage," *Abstr. BMES Meeting*, Abstract 1044 (October 2004).
189. A.G. Mikos, "Synthetic Polymers for Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 60b (November 2004).
190. H. Castano, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas, "The Differentiation Stage of Marrow Stromal Osteoblasts Influences their Ability to Induce *In Vivo* Bone Formation in an Orthotopic Site," *Abstr. AIChE Meeting*, Abstract 75d (November 2004).
191. A.G. Mikos, "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," *Abstr. MRS Meeting*, Abstract AA2.5 (November 2004).
192. A.S. Mistry, A.R. Barron, and A.G. Mikos, "*In Vitro* Accelerated Degradation of a Poly(Propylene Fumarate)-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," *Abstr. HSEMB Confer.*, 22, Abstract 98 (February 2005).
193. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," *Aegean Confer. Ser.*, 16, Abstract 17 (May 2005).
194. W.J.E.M. Habraken, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Calcium Phosphate/PLGA Microsphere Composites: Physical Properties and Degradation Characteristics," *Aegean Confer. Ser.*, 16, Abstract 33 (May 2005).

195. A.G. Mikos, T.A. Holland, F.K. Kasper, and J.S. Temenoff, "Cell and Bioactive Factor Delivery from Injectable, Biodegradable Hydrogel Scaffolds for Tissue Engineering," *Abstr. Intern. Confer. Mater. Adv. Technol.*, Abstract A-10-KN8 (July 2005).
196. H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Flow Perfusion Bioreactor," *Abstr. Intern. Bone Fluid Flow Workshop*, 7, Abstract 32 (September 2005).
197. S.A. Moore, J. Tessmar, and A.G. Mikos, "Matrix Metalloproteinase-Sensitive Hydrogels for Articular Cartilage Engineering," *Abstr. BMES Meeting*, Abstract 85 (September 2005).
198. M.C. Hacker and A.G. Mikos, "Novel Macromers for the Formation of Injectable, Calcium-Binding, *In Situ* Hardening Hydrogels," *Abstr. BMES Meeting*, Abstract 92 (September 2005).
199. A.S. Mistry, A.R. Barron, A.G. Mikos, and J.A. Jansen, "Degradation and Biocompatibility of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," *Abstr. BMES Meeting*, Abstract 753 (September 2005).
200. Z.S. Patel, Y. Tabata, and A.G. Mikos, "In Vitro Release of Vascular Endothelial Growth Factor from Gelatin Microparticles," *Abstr. BMES Meeting*, Abstract 1066 (September 2005).
201. A.G. Mikos, "Trends in Tissue Engineering Research: An Editor's Perspective," *Abstr. TESi Meeting*, Abstract Spe-2 (October 2005).
202. A.S. Mistry, M. Hacker, A.R. Barron, and A.G. Mikos, "Accelerated Degradation of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering: Mechanical Properties and Macromolecular Structure," *Abstr. TESi Meeting*, Abstract 62 (October 2005).
203. N. Datta, Q.P. Pham, U. Sharma, V.I. Sikavitsas, J.A. Jansen, and A.G. Mikos, "In Vitro Generated Extracellular Matrix and Fluid Shear Stress Synergistically Enhance 3D Osteoblastic Differentiation," *Abstr. TESi Meeting*, Abstract 81 (October 2005).
204. H. Park, J.S. Temenoff, and A.G. Mikos, "Injectable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Composites for Concurrent Delivery of Marrow Stromal Cells and Growth Factors," *Abstr. TESi Meeting*, Abstract 212 (October 2005).
205. U. Sharma, Q.P. Pham, N. Datta, and A.G. Mikos, "Using Bone-like ECM Produced *In Vitro* to Influence Osteoblastic Differentiation of Marrow Stromal Cells," *Abstr. AICHE Meeting*, Abstract 495e (November 2005).
206. H. Park, T.A. Holland, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogel Composites for Cell and Growth Factor Delivery for Cartilage Tissue Engineering," *Abstr. Intern. Cartilage Repair Soc. Symp.*, 6, Abstract P3-2 (January 2006).
207. M.C. Hacker and A.G. Mikos, "Design of Injectable Biodegradable Polymers for Tissue Regeneration," *Abstr. Sci. Confer. Soc. Phys. Regul. Biol. Med.*, 24, Abstract 57 (January 2006).
208. M.C. Hacker, B.B. Ma, and A.G. Mikos, "Macromers for Injectable Cell Carriers for Tissue Engineering Applications," *Abstr. Sci. Confer. Soc. Phys. Regul. Biol. Med.*, 24, Abstract 85 (January 2006).
209. A.G. Mikos, "Bioreactors for Bone Tissue Engineering," *Abstr. Regenerate World Congr. Tissue Eng. Regen. Med.*, Abstract Orthopedic II-1 (April 2006).
210. B. Sitharaman, L.A. Tran, P.P. Spicer, I. Rusakova, A.G. Mikos, and L.J. Wilson, "Fabrication and Characterization of Carbon Nanostructure *In Situ* Crosslinkable Composites for Bone Tissue Engineering," *Abstr. Regenerate World Congr. Tissue Eng. Regen. Med.*, Abstract 254 (April 2006).
211. A.G. Mikos, "Nanobiomaterials for Tissue Engineering," *Abstr. Biochem. Eng. Confer. & Symp. Nanomed. Tissue Eng.*, 11, Abstract 01-001 (June 2006).
212. M.C. Hacker, J.D. Kretlow, L. Klouda, B.B. Ma, and A.G. Mikos, "Synthesis and Characterization of Novel Calcium-Binding Macromers for Injectable Tissue Engineering," *Abstr. BMES Meeting*, Abstract 935 (October 2006).
213. A. Haesslein, M.C. Hacker, H. Ueda, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Long-Term Release of Glaucoma Therapeutics from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," *Abstr. BMES Meeting*, Abstract 1504 (October 2006).
214. A.G. Mikos, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," *Abstr. AICHE Meeting*, Abstract 155a (November 2006).
215. E. Christenson, W. Soofi, N. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," *Abstr. AICHE Meeting*, Abstract 171b (November 2006).
216. M.B. Murphy and A.G. Mikos, "The Hydroxyapatite Affinity and Binding Kinetics of Peptides Modified with Bisphosphonates, Poly(Aspartic Acid), and Poly(Glutamic Acid)," *Abstr. AICHE Meeting*, Abstract 173f (November 2006).

217. M.C. Hacker, L. Klouda, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Thermally Responsive Macromers for the Fabrication of Injectable, *In Situ* Crosslinkable Hydrogels," *Abstr. AIChE Meeting*, Abstract 190a (November 2006).
218. U. Sharma, Q. Pham, and A.G. Mikos, "Flow Perfusion Culture of Marrow Stromal Cells on Electrospun Polycaprolactone Scaffolds," *Abstr. AIChE Meeting*, Abstract 680d (November 2006).
219. A.G. Mikos, "Injectable Hydrogels for Stem Cell Delivery," *Abstr. Intern. Collab. Symp. Stem Cell Res.*, 1, Abstract 49 (December 2006).
220. A.G. Mikos, "Nanobiomaterials for Tissue Engineering," *Intern. Confer. Biomed. Pharm. Eng.*, Abstract P-1 (December 2006).
221. A.G. Mikos, "Biomaterials in Tissue Engineering," *Abstr. The Acad. Med. Eng. Sci. Texas Confer.*, Abstract Edith and Peter O'Donnell Award Recipient (January 2007).
222. A.G. Mikos, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," *Abstr. Musculoskel. Biol. Stem Cells Clin. Transl. Symp.*, Abstract 15 (January 2007).
223. E.M. Christenson, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "Biodegradable PolyHIPEs as Tissue Engineering Scaffolds for Craniofacial Reconstruction," *Abstr. IADR Meeting*, Abstract 1598 (March 2007).
224. F.K. Kasper, Q.P. Pham, and A.G. Mikos, "Generation of Tissue Engineering Scaffolds with a Flow Perfusion Bioreactor," *Abstr. Intern. Bone Fluid Flow Workshop*, 8, Abstract 30 (September 2007).
225. K. Kim, D. Dean, A.G. Mikos, and J.P. Fisher, "Effect of Cell Seeding Density on Osteogenic Signaling of Bone Marrow Stromal Cells in 3D Scaffolds," *Abstr. BMES Meeting*, Abstract P1.182 (September 2007).
226. A.G. Mikos, "Biomaterials in Tissue Engineering," *Abstr. BMES Meeting*, Abstract Robert A. Pritzker Distinguished Lectureship Award Recipient (September 2007).
227. S. Young, C. Nguyen, J.D. Kretlow, A.G. Mikos, and M. Wong, "Poly(Propylene Fumarate) Scaffolds with Surface Porosity for Space Maintenance of Mandibular Defects," *J. Oral Maxillofac. Surg.*, 65, Abstract 36.e1 (October 2007).
228. C. Nguyen, S. Young, J.D. Kretlow, M. Wong, and A.G. Mikos, "Soft Tissue Response to Implantation of Hybrid Poly(Propylene Fumarate) Scaffolds in a Critical Size Mandibular Defect," *J. Oral Maxillofac. Surg.*, 65, Abstract 43.e66-67 (October 2007).
229. A.S. Mistry, Q. Pham, C. Schouten, T. Yeh, A.G. Mikos, and J.A. Jansen, "*In Vivo* Hard Tissue Response and Degradation of Porous Fumarate-Based Polymer/Alumoxane Nanocomposites for Bone Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 134a (November 2007).
230. L. Klouda, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Synthesis and Characterization of Novel Thermoresponsive, Chemically Crosslinkable Macromers for the Fabrication of *In Situ* Forming Hydrogels," *Abstr. HSEMB Confer.*, 25, Abstract 180 (February 2008).
231. J.D. Kretlow, M.C. Hacker, L. Klouda, and A.G. Mikos, "Injectable Calcium-Binding Macromers for Bone Tissue Engineering," *Abstr. HSEMB Confer.*, 25, Abstract 181 (February 2008).
232. H. Park, J.S. Temenoff, Y. Tabata, A.I. Caplan, R.M. Raphael, J.A. Jansen, and A.G. Mikos, "Effect of Dual Growth Factor Delivery on Chondrogenic Differentiation of Rabbit Marrow Mesenchymal Stem Cells Encapsulated in Injectable Hydrogel Composites," *Abstr. HSEMB Confer.*, 25, Abstract 199 (February 2008).
233. X. Guo, H. Park, and A.G. Mikos, "*In Vitro* Osteogenic Differentiation of Rabbit Mesenchymal Stem Cells Encapsulated in Biodegradable Hydrogel Composites," *Abstr. HSEMB Confer.*, 25, Abstract 200 (February 2008).
234. A.G. Mikos, "Synthetic Scaffolds for Tissue Engineering," *Tissue Eng. Regen. Med.*, 5, Abstract IL-11 (June 2008).
235. F.K. Kasper, R.A. Thibault, and A.G. Mikos, "Mineralized Extracellular Matrix Constructs for Bone Tissue Engineering," *Abstr. Intern. Symp. Biomin.*, 10, Abstract F-01 (September 2008).
236. A.G. Mikos, "Synthetic Scaffolds for Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 420d (November 2008).
237. X. Guo, H. Park, J.S. Temenoff, Y. Tabata, A.I. Caplan, and A.G. Mikos, "Effect of Swelling Ratio of Injectable Hydrogel Composites on Chondrogenic Differentiation of Encapsulated Rabbit Marrow Mesenchymal Stem Cells *In Vitro*," *Abstr. AIChE Meeting*, Abstract 446d (November 2008).
238. K. Kim, M. Patel, D. Dean, A.G. Mikos, and J.P. Fisher, "Endogenous Growth Factor Gene Expression Profile of Bone Marrow Stromal Cells on 3D Porous Poly(Propylene

- Fumarate)/Hydroxyapatite Nanocomposites," *Abstr. AIChE Meeting*, Abstract 463e (November 2008).
239. S.A. Chew, M.C. Hacker, A. Saraf, and A.G. Mikos, "Effect of Hydrophilic Spacer Length on the Complexation of Novel Biodegradable Hyperbranched Polycationic Polymers and Plasmid DNA for Non-Viral Gene Delivery," *Abstr. AIChE Meeting*, Abstract 478g (November 2008).
 240. J.D. Kretlow, M.C. Hacker, B.B. Ma, L. Klouda, and A.G. Mikos, "Injectable, *In Situ* Hardening Macromers for Bone Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 499b (November 2008).
 241. L. Klouda, M.C. Hacker, L.H. Barg-Walkow, J.D. Kretlow, and A.G. Mikos, "Cytocompatibility Evaluation of Novel Thermoresponsive and Chemically Crosslinkable Macromers for Injectable, *In Situ* Forming Hydrogels," *Abstr. AIChE Meeting*, Abstract 540a (November 2008).
 242. E. Burdett, A.G. Mikos, and J. Ludwig, "Ewing's Sarcoma Spheroids as a 3-D Model of *In Vivo* Biology Useful for High-Throughput Preclinical Screening of Antineoplastic Drug Candidates," *Abstr. AIChE Meeting*, Abstract 572bd (November 2008).
 243. F.K. Kasper, R.A. Thibault, and A.G. Mikos, "Mineralized Extracellular Matrix Constructs Support the Osteogenic Differentiation of Mesenchymal Stem Cells *In Vitro*," *Abstr. AIChE Meeting*, Abstract 579c (November 2008).
 244. L. Klouda, M.C. Hacker, L.H. Barg-Walkow, J.D. Kretlow, and A.G. Mikos, "Development of Novel Thermally Responsive, *In Situ* Crosslinkable Hydrogels for Tissue Engineering," *Abstr. MRS Meeting*, Abstract HH10.3 (December 2008).
 245. A.M. Martins, A. Saraf, F.K. Kasper, C.M. Alves, R.L. Reis, and A.G. Mikos, "Lipase Promotes Osteogenic Differentiation of Marrow Stromal Cells on SPCL Fiber Meshes under Flow Perfusion Conditions," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 420 (December 2008).
 246. A.G. Mikos, "Synthetic Scaffolds for Tissue Engineering," *Abstr. Intern. Conf. Tissue Eng. Stem Cell Res. Using Nanomater.*, 1, Abstract 36 (February 2009).
 247. A.G. Mikos, "Current Strategies in Tissue Engineering," *Abstr. Intern. Conf. Tissue Eng. Stem Cell Res. Using Nanomater.*, 1, Abstract 112 (February 2009).
 248. A.G. Mikos, "Synthetic Scaffolds for Tissue Engineering and Regenerative Medicine," *Abstr. World Congr. Regener. Med.*, 4, Abstract 35 (March 2009).
 249. J. Liao, F.K. Kasper, and A.G. Mikos, "Effect of Flow Perfusion on Osteogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Microfiber Scaffolds," *Abstr. HSEMB Confer.*, 26, Abstract 63 (March 2009).
 250. S.A. Chew, M.C. Hacker, A. Saraf, and A.G. Mikos, "Effect of Types of Amines on the Complexation of Novel Biodegradable Hyperbranched Polycationic Polymers and Plasmid DNA for Non-Viral Gene Delivery," *Abstr. HSEMB Confer.*, 26, Abstract 140 (March 2009).
 251. E. Burdett, A.G. Mikos, and J. Ludwig, "Ewing's Sarcoma Spheroids as a 3-D Model of *In Vivo* Biology Useful for High-Throughput Preclinical Screening of Antineoplastic Drug Candidates," *Abstr. HSEMB Confer.*, 26, Abstract 156 (March 2009).
 252. M. Shi, J.D. Kretlow, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, "Characterization of Porous Poly(Methyl Methacrylate) Scaffolds for Osseous Space Maintenance," *Abstr. HSEMB Confer.*, 26, Abstract 181 (March 2009).
 253. J.D. Kretlow, M. Shi, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, "Porous Poly(Methyl Methacrylate) Implants for Osseous Space Maintenance and Promotion of Soft Tissue Healing around Craniofacial Bone Defects," *Abstr. TERMIS World Congr.*, 2, Abstract 7 (August 2009).
 254. M. Shi, J.D. Kretlow, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, "Antibiotic-Releasing Porous Poly(Methyl Methacrylate) Scaffolds for Osseous Space Maintenance and Infection Control," *Abstr. TERMIS World Congr.*, 2, Abstract 35 (August 2009).
 255. A.G. Mikos, "Synthetic Scaffolds for Bone Tissue Engineering," *Abstr. TERMIS World Congr.*, 2, Abstract 108 (August 2009).
 256. X. Guo, H. Park, F.K. Kasper, and A.G. Mikos, "*In Vitro* Generation of an Osteochondral Construct Using Injectable Hydrogel Composites Encapsulating Rabbit Marrow Mesenchymal Stem Cells," *Abstr. TERMIS World Congr.*, 2, Abstract 158 (August 2009).
 257. J.D. Kretlow, M.C. Hacker, L. Klouda, B.B. Ma, and A.G. Mikos, "Hydrophobic Pendant Chain Addition Affects Gelation Properties of Dual-Stimulus Responsive Smart Materials Incorporating N-Isopropylacrylamide and Vinylphosphonic Acid," *Abstr. TERMIS World Congr.*, 2, Abstract 251 (August 2009).

258. A. Saraf, L.S. Baggett, F.K. Kasper, and A.G. Mikos, "Regulated Non-Viral Gene Delivery from Coaxial Electrospun Fiber Mesh Scaffolds," *Abstr. TERMIS World Congr.*, 2, Abstract 372 (August 2009).
259. A.M. Martins, A. Saraf, R.A. Sousa, F.K. Kasper, C.M. Alves, R.L. Reis, and A.G. Mikos, "Towards Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured onto Starch/Poly(ϵ -caprolactone) Fiber Mesh Scaffolds: The Efficiency of Enzymes and Flow Perfusion Bioreactors," *Abstr. TERMIS World Congr.*, 2, Abstract 985 (August 2009).
260. A.M. Martins, F.K. Kasper, J.D. Kretlow, A.R. Costa-Pinto, P.B. Malafaya, N.M. Neves, C.M. Alves, R.L. Reis, and A.G. Mikos, "In Vivo Responsive Scaffolds with the Ability of *In Situ* Pore Formation: A Novel Strategy for Bone Tissue Engineering," *Abstr. TERMIS World Congr.*, 2, Abstract 1039 (August 2009).
261. J. Liao, X. Guo, F.K. Kasper, and A.G. Mikos, "Effect of a Mineralized Extracellular Matrix Scaffold Generated in Flow Perfusion on the Osteogenic Differentiation of Mesenchymal Stem Cells," *Abstr. TERMIS World Congr.*, 2, Abstract 1104 (August 2009).
262. P.M. Mountziaris and A.G. Mikos, "Effect of TNF-Alpha on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells," *Abstr. AIChE Meeting*, Abstract 55e (November 2009).
263. F.K. Kasper and A.G. Mikos, "Emerging Biomaterial Approaches for Bone Regeneration," *Abstr. AIChE Meeting*, Abstract 282f (November 2009).
264. F.K. Kasper, P.M. Mountziaris, S.N. Tzouanas, and A.G. Mikos, "Harnessing Inflammation in Strategies for Bone Tissue Engineering," *Abstr. Am. Aging Assoc. Meeting*, 39, Abstract 37 (June 2010).
265. A.G. Mikos, "Advancing Biomaterial Strategies for Musculoskeletal Tissue Engineering," *Abstr. Symp. Innov. Polym. Contr. Deliv.*, Abstract 38 (September 2010).
266. A. Henslee, D.-H. Gwak, A.G. Mikos, and F.K. Kasper, "Development and Optimization of a Biodegradable Bone Cement for Clinical Applications," *Abstr. BMES Meeting*, Abstract OP-7-2-9B (October 2010).
267. P.M. Mountziaris, E.D. Lehman, F.K. Kasper, and A.G. Mikos, "Effect of Patterned TNF- α Delivery on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells," *Abstr. BMES Meeting*, Abstract PS-8A-19-267 (October 2010).
268. E. Burdett, A.G. Mikos, F.K. Kasper, and J.A. Ludwig, "The Development of a 3D Tissue Engineered Bone Tumor Model," *Abstr. BMES Meeting*, Abstract OP-8-2-16F (October 2010).
269. M. Singh, F.K. Kasper, and A.G. Mikos, "Cartilage Tissue Engineering Using Neonatal Human Dermal Fibroblasts," *Abstr. BMES Meeting*, Abstract PS-9A-18-209 (October 2010).
270. D.M. Yoon, B.Y. Lu, E.L. Bakota, F.K. Kasper, J.D. Hartgerink, and A.G. Mikos, "Exploring Multi-Domain Peptides and Gelatin Microparticles as an Osteogenic Factor Delivery System," *Abstr. BMES Meeting*, Abstract OP-9-1-13C (October 2010).
271. E.J. Levorson, F.K. Kasper, and A.G. Mikos, "Development of a Chondrogenic Pellet Preculture System for Cartilage Tissue Engineering Applications," *Abstr. BMES Meeting*, Abstract OP-9-1-15C (October 2010).
272. R. Buchanan, M. Murphy, D.M. Yoon, A. Henslee, M. Nair, X. Liu, F.K. Kasper, P. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti, "Trifunctional Porogens for the Development of an Injectable Putty to Treat Traumatic Bone Defects," *Abstr. BMES Meeting*, Abstract OP-9-3-1E (October 2010).
273. M. Bongio, J.J.J.P. van den Beucken, S.C.G. Leeuwenburgh, A.G. Mikos, and J.A. Jansen, "Injectable Hybrid Hydrogels for Bone Regeneration," *Abstr. Bone-TEC*, Abstract 23 (October 2010).
274. A.G. Mikos, "Advancing Biomaterial Strategies for Bone Tissue Engineering," *Abstr. Bone-TEC*, Abstract 52 (October 2010).
275. A.G. Mikos, "Advancing Biomaterial Strategies for Musculoskeletal Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 328e (November 2010).
276. P.M. Mountziaris, D.C. Sing, E.D. Lehman, P.R. Kramer, and A.G. Mikos, "Controlled Release of Anti-Tumor Necrosis Factor-Alpha siRNA from Biodegradable Polymeric Microparticles," *Abstr. AIChE Meeting*, Abstract 484f (November 2010).
277. L. Klouda, K.R. Perkins, F.K. Kasper, and A.G. Mikos, "Fabrication and Characterization of Thermally Responsive, *In Situ* Crosslinkable Hydrogels Based on Poly(N-Isopropylacrylamide)," *Abstr. AIChE Meeting*, Abstract 513f (November 2010).

278. V.V. Meretoja, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Chondrogenesis of Mesenchymal Stem Cells under Flow Perfusion Conditions," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 291 (December 2010).
279. K. Kim, J. Wallace, D. Dean, A.G. Mikos, and J.P. Fisher, "Stereolithographical Bone Scaffold Fabrication and Its Enhanced Osteogenic Signal Expression Over Random Pore Architecture of Poly(Propylene Fumarate)/Diethyl Fumarate Composites," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 323 (December 2010).
280. D.M. Yoon, A.M. Henslee, A.A. Arango, L.P. Marruffo, M.B. Nair, T.D. Anver, H. Ather, N. Demian, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "Developing *In-Situ* Crosslinkable Scaffold to Mechanically Stabilize Mandibular Defects," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 1314 (December 2010).
281. P.P. Spicer, J.D. Kretlow, A.M. Henslee, M. Shi, S. Young, N. Demian, J.A. Jansen, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "*In Situ* Formation of Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Complex Regeneration," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 1331 (December 2010).
282. J.E. Wallace, A. Siblani, M. Wang, K. Kim, J.P. Fisher, A.G. Mikos, and D. Dean, "Continuous DLP Rendering of Tissue Engineering Scaffolds," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 1377 (December 2010).
283. P.P. Spicer, M. Shi, J.D. Kretlow, S. Young, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Antibiotic-Releasing Porous Poly(Methylmethacrylate) Space Maintainers for Craniofacial Tissue Engineering," *Aegean Confer. Ser.*, 55, Abstract 50 (June 2011).
284. R.P. Felix Lanao, J.G. Wolke, S.C. Leeuwenburgh, A.G. Mikos, and J.A. Jansen, "*In Vitro* and *In Vivo* Controlled Degradation of Injectable Calcium Phosphate Cement Composite," *Aegean Confer. Ser.*, 55, Abstract 56 (June 2011).
285. E. Burdett, F.K. Kasper, A.G. Mikos, and J.A. Ludwig, "Development of a 3D Tissue Engineered Cancer Model for Drug Screening," *Aegean Confer. Ser.*, 55, Abstract 65 (June 2011).
286. P.M. Mountziaris, S.N. Tzouanas, A.G. Mikos, and F.K. Kasper, "Harnessing Inflammation in Strategies for Bone Tissue Engineering," *Aegean Confer. Ser.*, 55, Abstract 91 (June 2011).
287. C.J. Needham, S. Chew, A.K. Williams, F.K. Kasper, and A.G. Mikos, "The Effect of Primary Amines, Overall Charge, and Ligand Targeting on the Effectiveness of Poly(Ethylenimine)-Hyaluronic Acid Conjugates as Gene Therapy Agents," *Abstr. BMES Meeting*, Abstract PS-Thurs-B-197 (October 2011).
288. K.E. Hammerick, F.K. Kasper, and A.G. Mikos, "Nanostructured Scaffolds for Regulating Osteogenic Differentiation of Induced Pluripotent Stem Cells," *Abstr. BMES Meeting*, Abstract Sat-2-9-F (October 2011).
289. A.K. Ekenseair, K.W.M. Boere, F.K. Kasper, and A.G. Mikos, "A Novel Epoxy-Based, Injectable Hydrogel Scaffold for Tissue Regeneration," *Abstr. AIChE Meeting*, Abstract 74h (October 2011).
290. A.K. Ekenseair, N. Zuiker, F.K. Kasper, and A.G. Mikos, "Optimization of Thermogelling, Injectable Scaffolds for Craniofacial Tissue Regeneration," *Abstr. AIChE Meeting*, Abstract 275f (October 2011).
291. R.A. Thibault, F.K. Kasper, and A.G. Mikos, "Protein and Mineral Composition of an Extracellular Matrix Scaffold for Osteogenic Differentiation of Bone Marrow Stromal Cells," *Abstr. AIChE Meeting*, Abstract 567f (October 2011).
292. A.G. Mikos, "Advancing Scaffold-Based Approaches for Bone Tissue Engineering," *Abstr. Days Mol. Med.*, Abstract 37 (November 2011).
293. T.N. Vo, A.K. Ekenseair, K.W.M. Boere, F.K. Kasper, and A.G. Mikos, "Injectable PNIPAAm-Based Scaffolds with Tunable LCST for Craniofacial Bone Regeneration," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 144 (December 2011).
294. V.V. Meretoja, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Chondrogenesis in Mesenchymal Stem Cell Cultures Supplemented with Articular Chondrocytes," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 147 (December 2011).
295. R.L. Dahlin, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "Testing of a High Throughput Flow Perfusion Bioreactor for Osteochondral Tissue Engineering," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 180 (December 2011).
296. K. Kim, J. Lam, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Release from Bilayered Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 224 (December 2011).

297. K. Kim, S. Lu, J. Lam, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Optimizing Encapsulation Densities of Cell Populations in Bilayered Hydrogels for Osteochondral Tissue Engineering," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 225 (December 2011).
298. A.A. Appel, J. Larson, S. Somo, M.A. Anastasio, P.P. Spicer, F.K. Kasper, A.G. Mikos, and E.M. Brey, "Three Dimensional Quantitative Imaging of Biomaterials in Engineered Tissues with X-ray Phase Contrast," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 246 (December 2011).
299. A.M. Henslee, D.-H. Gwak, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Development of a Biodegradable Bone Cement for Craniofacial Applications," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 301 (December 2011).
300. D.M. Yoon, A.M. Henslee, B.Y. Lu, A.A. Arango, L.P. Marruffo, L.J. Seng, T.D. Anver, H. Ather, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Characterizing an Injectable Synthetic Biodegradable Polymer to Mechanically Stabilize Mandibular Defects," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 312 (December 2011).
301. P.P. Spicer, M. Shi, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Characterization of Poly(Methylmethacrylate)/Gelatin Constructs for Osseous Space Maintenance and Antibiotic Delivery," *Abstr. TERMIS-North America Ann. Confer. Exp.*, Abstract 383 (December 2011).
302. F.K. Kasper and A.G. Mikos, "Harnessing Nanotechnology in Approaches for Tissue Engineering," *Abstr. Intern. Conf. Nanotechn. Bio-Med. Interf.*, 2, Abstract 14 (February 2012).
303. K. Kim, S. Lu, J. Lam, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Delivery of Growth Factors and Mesenchymal Stem Cells Using Bilayered Hydrogels for Osteochondral Tissue Regeneration," *Abstr. Intern. Conf. Nanotechn. Bio-Med. Interf.*, 2, Abstract 130 (February 2012).
304. A.G. Mikos, "Basic Concept of Tissue Engineering and Its Possible Applications in Clinical Dentistry," *Abstr. Intern. Joint Symp. Oral Dent. Sci.*, 2, Abstract 25 (March 2012).
305. L.A. Kinard, C. Chu, F.K. Kasper, and A.G. Mikos, "Controlled Delivery of rhBMP-2 from OPF Hydrogel Composites for Bone Tissue Engineering," *Abstr. TERMIS World Congr.*, 3, Abstract 54.02 (September 2012).
306. P.P. Spicer, A.M. Henslee, A. Nawab, N. Demian, F.K. Kasper, A.G. Mikos, and M.E. Wong, "Porous Polymethylmethacrylate Fabricated Intraoperatively as a Mandibular Space Maintainer Post Tumor Resection: A Case Series," *Abstr. TERMIS World Congr.*, 3, Abstract 03.P22 (September 2012).
307. K. Kim, J. Lam, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered Composite Hydrogels for Osteochondral Tissue Repair in a Rabbit Model," *Abstr. TERMIS World Congr.*, 3, Abstract 08.P30 (September 2012).
308. R. Dahlin, V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Flow Perfusion Co-Culture of Articular Chondrocytes and Mesenchymal Stem Cells," *Abstr. TERMIS World Congr.*, 3, Abstract 56.P07 (September 2012).
309. P.M. Mountziaris, S.N. Tzouanas, and A.G. Mikos, "The Interplay of Bone-Like Extracellular Matrix and TNF- α Signaling on *In Vitro* MSC Osteogenic Differentiation," *Abstr. SFB Fall Symp.*, Abstract 10 (October 2012).
310. L. Wang, F.K. Kasper, and A.G. Mikos, "Fabrication of Cell-Laden Microporous Hydrogels Using Gelatin as a Porogen for Bone Regeneration," *Abstr. BMES Meeting*, Abstract OP-Thurs-2-10D (October 2012).
311. L. Wang, D.M. Yoon, P.P. Spicer, A.M. Henslee, F.K. Kasper, and A.G. Mikos, "Characterization of Porous Polymethylmethacrylate for Craniofacial Reconstruction," *Abstr. BMES Meeting*, Abstract OP-Fri-1-19B (October 2012).
312. G. Lalwani, B. Farshid, A.M. Henslee, A.G. Mikos, and B. Sitharaman, "Inorganic and Carbon Nanoparticle-Reinforced Poly(Propylene Fumarate) Nanocomposites for Bone Tissue Engineering," *Abstr. BMES Meeting*, Abstract P-Fri-B-17 (October 2012).
313. L. Wang, F.K. Kasper, and A.G. Mikos, "Cell-Laden Microporous Hydrogels Using Carboxymethylcellulose as a Porogen for Cartilage Regeneration," *Abstr. BMES Meeting*, Abstract P-Fri-B-339 (October 2012).
314. J.G. Gershovich, F.K. Kasper, and A.G. Mikos, "Accelerated Osteogenesis of Human Mesenchymal Stem Cells in Co-Culture with Endothelial Cells in 3D-Scaffolds," *Abstr. BMES Meeting*, Abstract OP-Sat-1-18C (October 2012).
315. V.V. Meretoja, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "3D Co-Cultures of Chondrocytes and MSCs are Resistant to Hypertrophy in Normoxia and Hypoxia," *Abstr. BMES Meeting*, Abstract OP-Sat-1-18D (October 2012).

316. A.K. Ekenseair, K.W.M. Boere, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Swelling and Mechanical Behavior of Novel Thermally and Chemically Gelling Injectable Hydrogels," *Abstr. BMES Meeting*, Abstract P-Sat-A-81 (October 2012).
317. A.K. Ekenseair, S.N. Tzouanas, K.W.M. Boere, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Evaluation of Polyamidoamine-Based Dual-Hardening, Injectable Hydrogels for Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 701d (October 2012).
318. A.G. Mikos, A.K. Ekenseair, T.N. Vo, S.N. Tzouanas, and F.K. Kasper, "Synthetic Polymer Scaffolds for Bone Tissue Engineering," *Abstr. Soc. Polym. Sci. Japan Intern. Polym. Conf.*, 9, Abstract 13C01IL (December 2012).
319. M.J. Yaszemski and A.G. Mikos, "Porous Polymers in Tissue Engineering and Regenerative Medicine Applications," *Abstr. ACS*, 245, Abstract PMSE-188 (April 2013).
320. A.G. Mikos, "Biomaterials for Regenerative Medicine," *Abstr. Intern. Conf. Regener. Biomed. Mater.*, Abstract 31 (June 2013).
321. H. Wang, L.A. Kinard, L. Wang, J. Liu, Y. Wang, Z. Liu, F.K. Kasper, A.G. Mikos, and C. Wang, "OPF Hydrogel Prevents Adverse Remodeling after Myocardial Infarction by Inhibiting Serum Response Factor Mediated Myofibroblast Transformation in Cardiac Fibroblasts and its Application in Heart Regeneration," *Abstr. Intern. Conf. Regener. Biomed. Mater.*, Abstract 110 (June 2013).
322. E. Levorson and A.G. Mikos, "Mesenchymal Stem Cell Co-Cultures for Tissue Engineering Applications," *Abstr. MSC Conf.*, Abstract 22 (August 2013).
323. V.V. Meretoja, R.L. Dahlin, S. Wright, M. Ni, F.K. Kasper, and A.G. Mikos, "Effect of Chondrocyte Dedifferentiation on 3D Co-cultures with Mesenchymal Stem Cells," *Abstr. BMES Meeting*, Abstract P-Th-B-266 (September 2013).
324. J. Lam, S. Lu, A.G. Mikos, and F.K. Kasper, "Chondrogenic and Osteogenic Pre-Differentiation of Mesenchymal Stem Cells for Osteochondral Tissue Engineering Using Bilayered Hydrogels," *Abstr. BMES Meeting*, Abstract P-Th-B-282 (September 2013).
325. G. Lalwani, A.M. Henslee, B. Farshid, L. Lin, F.K. Kasper, Y.-X. Qin, A.G. Mikos, and B. Sitharaman, "Two Dimensional Carbon and Inorganic Nanostructures Reinforced Biodegradable Polymeric Nanocomposites for Bone Tissue Engineering," *Abstr. BMES Meeting*, Abstract P-Fri-A-66 (September 2013).
326. M. Santoro, S.-E. Lamhamedi-Cherradi, F.K. Kasper, J.A. Ludwig, and A. G. Mikos, "In Vitro Tumor Model Generated Using a Flow Perfusion Bioreactor," *Abstr. BMES Meeting*, Abstract OP-Sat-1-2F (September 2013).
327. A.K. Ekenseair, S.N. Tzouanas, T.N. Vo, P.P. Spicer, B.M. Watson, P.M. Mountziaris, F.K. Kasper, and A.G. Mikos, "Spontaneous Mineralization of Hydrophobic Hydrogels for Craniofacial Bone Tissue Regeneration," *Abstr. AIChE Meeting*, Abstract 42d (November 2013).
328. B.M. Watson, F.K. Kasper, P.S. Engel, and A.G. Mikos, "Synthesis and Characterization of Novel, In Situ Cross-Linkable, Biodegradable, Thermoresponsive Hydrogels for Bone Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 489a (November 2013).
329. L.A. Kinard, F.K. Kasper, and A.G. Mikos, "Oligo(Poly(Ethylene Glycol) Fumarate) as a Synthetic Hydrogel Carrier for Demineralized Bone Matrix," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract Online (November 2013).
330. R.L. Dahlin, V.V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Enhancing the Chondrogenic Phenotype of Articular Chondrocytes in Flow Perfusion," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract Online (November 2013).
331. J. Lam, R.L. Dahlin, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Articular Chondrocyte and Mesenchymal Stem Cell Co-Cultures in Hydrogels for Osteochondral Tissue Engineering," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract Online (November 2013).
332. E.L.S. Fong, M. Martinez, D.A. Harrington, A.G. Mikos, N.M. Navone, and M.C. Farach-Carson, "Developing a Clinically Relevant In Vitro Model of Bone Metastatic Prostate Cancer," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract Online (November 2013).
333. A.G. Mikos and F.K. Kasper, "Biomaterials for Tissue Engineering," *Abstr. Intern. Confer. Biomed. Eng.*, Abstract PL1 (December 2013).
334. A.G. Mikos, M.E. Wong, and F.K. Kasper, "Leveraging Biomaterials in Translational Strategies for Craniofacial Bone Repair," *Abstr. Intern. Confer. Biomed. Eng.*, Abstract SYM-01:1 (December 2013).
335. A.G. Mikos, "Biomaterials for Regenerative Medicine," *Abstr. Congr. Japan. Soc. Regener. Med.*, 13, Abstract 101 (March 2014).

336. T.N. Vo, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Injectable, Physically and Chemically Forming Hydrogels with Hydrolysis-Dependent Thermosensitivity," *Abstr. ACS*, 247, Abstract PMSE-207 (March 2014).
337. E.J. Lee, J. Zimak, M.R. Diehl, J.J. Tabor, and A.G. Mikos, "An Optogenetic Approach to Bone Tissue Engineering," *Aegean Confer. Ser.*, 84, Abstract 49 (June 2014).
338. T.N. Vo, T.T. Roh, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Development of Injectable, Physically and Chemically Forming, Stem Cell-Laden Hydrogel Composites for Bone Tissue Engineering," *Aegean Confer. Ser.*, 84, Abstract 82 (June 2014).
339. A.G. Mikos, "Tissue Engineering: Challenges and Opportunities," *Abstr. Intern. Confer. Tissue Eng. Regener. Med.*, Abstract 11 (August 2014).
340. A.G. Mikos, T.N. Vo, and B.M. Watson, "Injectable, Dual Gelling Hydrogels for Stem Cell Delivery for Craniofacial Tissue Engineering," *Abstr. Symp. Innov. Polym. Contr. Deliv.*, 3, Abstract 3 (September 2014).
341. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract 2.1 (October 2014).
342. J. Lam, S. Lu, E.J. Lee, J.E. Trachtenberg, V.V. Meretoja, R.L. Dahlin, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, F.K. Kasper, and A.G. Mikos, "Osteochondral Defect Repair Using Bilayered Hydrogels Encapsulating both Chondrogenically and Osteogenically Pre-differentiated Mesenchymal Stem Cells in a Rabbit Model," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.17 (October 2014).
343. E.J. Lee, J. Zimak, M.R. Diehl, J.J. Tabor, and A.G. Mikos, "An Optogenetic Approach to Bone Tissue Engineering," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.19 (October 2014).
344. C.E. Livingston, A.M. Tatara, and A.G. Mikos, "'Smart' Bone Cement: Synthesis and Characterization of Metronidazole Acrylate," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.22 (October 2014).
345. S. Lu, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered, Biodegradable Hydrogel Composites for Spatially Guided Osteochondral Tissue Repair," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.23 (October 2014).
346. T.T. Roh, T.N. Vo, and A.G. Mikos, "Effect of Gelatin Incorporation on the Mineralization and Osteogenesis of Stem Cell Laden Hydrogels," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.28 (October 2014).
347. M. Santoro, S.E. Lamhamedi-Cherradi, B.A. Menegaz, V. Ramamoorthy, F.K. Kasper, J.A. Ludwig, and A.G. Mikos, "Effect of Variable Flow Perfusion on an *In Vitro* Tumor Model for Ewing Sarcoma," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.30 (October 2014).
348. S. Shah, M. Santoro, and A.G. Mikos, "Clindamycin as an Osteogenic and Antimicrobial Agent," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.33 (October 2014).
349. A.M. Tatara, J. Lam, and A.G. Mikos, "A Novel Elastomer/Gelatin Microparticle Composite Material," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.35 (October 2014).
350. J.E. Trachtenberg, P.M. Mountziaris, J.S. Miller, M. Wettergreen, F.K. Kasper, and A.G. Mikos, "Open-Source Three-Dimensional Printing of Biodegradable Polymer Scaffolds for Tissue Engineering," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.39 (October 2014).
351. E.L.S. Fong, M. Martinez, J. Yang, A.G. Mikos, N.M. Navone, D.A. Harrington, and M.C. Farach-Carson, "Hydrogel-Based 3D Model of Patient-Derived Prostate Xenograft Tumors Suitable for Drug Screening," *Abstr. Inaug. Symp. Gulf Coast Cluster Regener. Med.*, Abstract P.48 (October 2014).
352. S. Lu, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered Hydrogel Composites for Spatially-Guided Osteochondral Tissue Repair *In Vivo*," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract O-99, *Tissue Eng. Part A*, 20, Suppl. 1, S-8 (2014).
353. J. Lam, S. Lu, E.J. Lee, J.E. Trachtenberg, V.V. Meretoja, R.L. Dahlin, J. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Osteochondral Defect Repair Using Bilayered Hydrogels Encapsulating both Chondrogenically and Osteogenically Pre-Differentiated Mesenchymal Stem Cells in a Rabbit Model," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract P-416, *Tissue Eng. Part A*, 20, Suppl. 1, S-98-S-99 (2014).
354. E.L.S. Fong, D.A. Harrington, A.G. Mikos, and M.C. Farach-Carson, "Engineering the Bone Metastatic Prostate Cancer Microenvironment Using a Three-Dimensional Hyaluronan-Based

- Hydrogel System," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract P-434, *Tissue Eng. Part A*, 20, Suppl. 1, S-100 (2014).
355. M. Santoro, S. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Effect of Flow Conditions in a 3D Tumor Model Generated Using a Flow Perfusion Bioreactor," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract P-510, *Tissue Eng. Part A*, 20, Suppl. 1, S-112 (2014).
 356. J. Lam, E. Clark, E.J. Lee, E.L.S. Fong, S. Lu, and A.G. Mikos, "Evaluation of Polyelectrolyte Hydrogels Incorporating Poly(L-Lysine) as a Stimulant of Chondrogenic Differentiation for Cartilage Tissue Engineering," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.15 (June 2015).
 357. S. Lu, J. Lam, and A.G. Mikos, "Osteochondral Tissue Repair Using a Bilayered Hydrogel Composite Delivering Spatially-Guided Dual Growth Factors," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.17 (June 2015).
 358. M. Santoro, S.E. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Flow Perfusion Effects on Three-Dimensional Culture and Drug Sensitivity of Ewing Sarcoma," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.25 (June 2015).
 359. S.R. Shah, A.M. Tatara, J. Lam, S. Lu, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Clindamycin-Releasing Porous Poly(Methylmethacrylate) Space Maintainers for Prevention of Mandibular Infection," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.28 (June 2015).
 360. A.M. Tatara, S.R. Shah, J. Lam, N. Demian, T. Ho, J. Shum, M.E. Wong, and A.G. Mikos, "Using the Body to Regrow the Body: *In Vivo* Bioreactors for Craniofacial Tissue Engineering," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.30 (June 2015).
 361. T.N. Vo, T. Roh, S.R. Shah, S. Lu, E.J. Lee, A.M. Tatara, and A.G. Mikos, "*In Vitro* and *In Vivo* Mineralization and Osteogenesis of Injectable Stem Cell Laden Hydrogels," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 2, Abstract P.32 (June 2015).
 362. J. Lam, S. Lu, and A.G. Mikos, "Delivering Tissue-Specific Mesenchymal Stem Cells or Growth Factors from Bilayered Hydrogels for Osteochondral Tissue Repair in a Rabbit Model," *Abstr. Intern. Conf. Regener. Biomed. Mater.*, 2, Abstract 37 (June 2015).
 363. M. Santoro, S. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Fluid Shear Stress Effects on Three-Dimensional Culture and Drug Sensitivity of Ewing Sarcoma," *Tissue Eng. Part A*, 21, Suppl. 1, S-195 (2015).
 364. M. Santoro, B. Smith, E. Grosfeld, J.J.J.P. van den Beucken, J.A. Jansen, and A.G. Mikos, "Development of Injectable and Resorbable Calcium Phosphate Cements Incorporating Carbohydrate Porogens for Designer Degradability," *Tissue Eng. Part A*, 21, Suppl. 1, S-255-S-256 (2015).
 365. T.N. Vo, T.T. Roh, and A.G. Mikos, "Injectable, Dual-Gelling Hydrogels with Hydrophobicity-Dependent Mineralization for Directing Osteogenesis *In Vitro*," *Tissue Eng. Part A*, 21, Suppl. 1, S-327-S-328 (2015).
 366. A.M. Tatara, S.R. Shah, J. Lam, N. Demian, T. Ho, J. Shum, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Reconstruction of Large Mandibular Defects Using Tissue-Engineered Autologous Free Tissue Flaps Generated from *In Vivo* Bioreactors in an Ovine Model," *Tissue Eng. Part A*, 21, Suppl. 1, S-338-S-339 (2015).
 367. A.M. Tatara, N.D. Albert, S.R. Shah, D.P. Kontoyiannis, and A.G. Mikos, "Composite Membranes for Treatment of Cutaneous Mold Infection," *Tissue Eng. Part A*, 21, Suppl. 1, S-388 (2015).
 368. A.G. Mikos, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," *Abstr. MANA Intern. Symp.*, 9, Abstract S-9-1 (March 2016).
 369. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. Intern. Confer. Nanosci. Nanotechn.*, 13, Abstract 2 (July 2016).
 370. A.G. Mikos, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," *Abstr. Intern. Confer. Nanosci. Nanotechn.*, 13, Abstract 6 (July 2016).
 371. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. NCTERMS Meeting*, 18, Abstract 3 (October 2016).
 372. A.G. Mikos, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 297b (November 2016).
 373. E.J. Lee, E.J. Gomez, T.C. Piepergerdes, J. Suh, J.J. Tabor, and A.G. Mikos, "Tunable Delivery of Bone Morphogenetic Protein-2 via a Light-Activatable Adeno-Associated Virus Platform," *Tissue Eng.*

- Part A, 22, Suppl. 1, S-7-S-8 (2016).*
374. A.M. Tatara, E. Watson, N.D. Albert, D.P. Kontoyiannis, and A.G. Mikos, "Biodegradable Unsaturated Polyesters Synthesized from Antifungal Monomers," *Tissue Eng. Part A, 22, Suppl. 1, S-45-S-46 (2016).*
 375. S.R. Shah, B.T. Smith, A.M. Tatara, E.R. Molina, E.J. Lee, R.E. Guldberg, G.N. Bennett, J.C. Wenke, and A.G. Mikos, "Antibiotic-Releasing Porous Space Maintainers Mitigate Infection and Restore the Osteogenic Potential of Induced Membranes in Infected Bone Defects," *Tissue Eng. Part A, 22, Suppl. 1, S-118 (2016).*
 376. A.M. Tatara, S.R. Shah, E. Watson, B.T. Smith, N. Demian, I.A. Hanna, J.C. Melville, J. Shum, T. Ho, J.J. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Ovine Model for Generation of Tissue-Engineered Vascularized Bone of Large Volume and Custom Geometry," *Tissue Eng. Part A, 22, Suppl. 1, S-155-S-156 (2016).*
 377. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. Cell. Mol. Bioeng. Conf.*, Abstract 26 (January 2017).
 378. J.L. Guo, Y.S. Kim, P.S. Engel, and A.G. Mikos, "Thiolated Poly(Lactic-co-Glycolic Acid) Macromers for Biomolecule Conjugation by Alkyne-Azide Click Chemistry," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.4 (April 2017).
 379. Y. Kim, J.L. Guo, J. Lam, and A.G. Mikos, "Preparation of Chondroitin Sulfate Crosslinked, Thermally Responsive Hydrogel for Osteochondral Tissue Regeneration," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.9 (April 2017).
 380. E.J. Lee, T.C. Piepergerdes, S.M. Vasquez, E.J. Gomez, J. Suh, J.J. Tabor, and A.G. Mikos, "Tunable Delivery of Bone Morphogenetic Protein-2 (BMP-2) Via a Light-Activatable Adeno-Associated Virus (AAV) Platform," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.12 (April 2017).
 381. E.R. Molina, T. Satish, B.A. Menegaz, S.E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Electrospun Three-Dimensional Models of Osteosarcoma Tumor Microenvironments," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.15 (April 2017).
 382. B.T. Smith, A. Lu, E. Watson, and A.G. Mikos, "Incorporation of Synthetic Polymers and Carbohydrates for the Development of Injectable Calcium Phosphate Cements," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.25 (April 2017).
 383. E. Watson, C. Kim, A.M. Tatara, S. Yang, and A.G. Mikos, "A Tunable Polymer System for Tissue Engineering," *Abstr. Ann. Symp. Gulf Coast Cluster Regener. Med.*, 3, Abstract P.32 (April 2017).
 384. E. Watson, S. Yang, S.R. Shah, and A.G. Mikos, "A Mechanically-Tunable Polymer System for Drug Delivery in Tissue Engineering," *Aegean Confer. Ser.*, 108, Abstract 54 (June 2017).
 385. A.M. Tatara, M.E. Wong, and A.G. Mikos, "Advances in the *In Vivo* Bioreactor for Craniofacial Reconstruction," *Aegean Confer. Ser.*, 108, Abstract 89 (June 2017).
 386. A.G. Mikos, "Development of a Tissue-Engineered Tumor Model," *Abstr. Intern. Confer. Nanosci. Nanotechn.*, 14, Abstract 229 (July 2017).
 387. A.G. Mikos, "Development of a Tissue-Engineered Tumor Model," *Abstr. Intern. Confer. Tissue Eng. Regener. Med.*, 2, Abstract 26 (July 2017).
 388. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. Ann. Confer. Eur. Soc. Biomater.*, 28, Abstract PL-02 (September 2017).
 389. A.M. Tatara and A.G. Mikos, "Considerations for Biomaterials Development for Regenerative Medicine Applications," *Abstr. Ann. Confer. Eur. Soc. Biomater.*, 28, Abstract SS08-3 (September 2017).
 390. T. Satish, E.R. Molina, B.A. Menegaz, S.E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Electrospun 3D Poly(ϵ -caprolactone) Scaffolds for Osteosarcoma Behavior Modeling," *Abstr. BMES Meeting*, Abstract TH-228 (October 2017).
 391. A.G. Mikos, "Biomaterials for Tissue Engineering and Regenerative Medicine," *Abstr. Xiang Shan Sci. Confer. Biomater. Regener. Med.*, Abstract 5 (October 2017).
 392. A.G. Mikos, "Biomaterials for Tissue Engineering and Regenerative Medicine," *Abstr. Korean Soc. Biomater. Fall Meeting*, Abstract PL-1 (October 2017).
 393. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. AIChE Meeting*, Abstract 457a (October 2017).

394. S. Bittner, B. Smith, A. Melchiorri, and A.G. Mikos, "Fabrication of 3D-Printed, Bidirectional Growth Factor Gradient Scaffolds for Osteochondral Tissue Repair," *Tissue Eng. Part A*, 23, Suppl. 1, S-38-S-39 (2017).
395. T.C. Piepergerdes, A.M. Tatar, S.R. Shah, E. Watson, B.T. Smith, G.L. Koons, N. Demian, J. Melville, I. Hanna, T. Ho, J. Shum, J.J. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Osteogenic, Chondrogenic, and Angiogenic Gene Expression of Tissue-Engineered Flaps Grown in an *In Vivo* Ovine Bioreactor," *Tissue Eng. Part A*, 23, Suppl. 1, S-40 (2017).
396. J.L. Guo, Y. Kim, P.S. Engel, and A.G. Mikos, "Thiolated Poly(Lactic-co-Glycolic Acid) Macromers for Biomolecule Conjugation by Alkyne-Azide Click Chemistry," *Tissue Eng. Part A*, 23, Suppl. 1, S-49 (2017).
397. E.R. Molina, T. Satish, B.A. Menegaz, S. Lamhamedi-Cherradi, J.A. Ludwig, IV, and A.G. Mikos, "Electrospun Three Dimensional Models of Osteosarcoma Tumor Microenvironments," *Tissue Eng. Part A*, 23, Suppl. 1, S-58 (2017).
398. M. Smoak, A. Kishan, E. Cosgriff-Hernandez, and A.G. Mikos, "Processing Tissue-Specific Extracellular Matrix for Use as Electrospun Meshes," *Tissue Eng. Part A*, 23, Suppl. 1, S-68 (2017).
399. E. Watson, C. Kim, A.M. Tatar, and A.G. Mikos, "A Tunable Poly(Diol Diacid) System for Drug Delivery and Tissue Engineering Applications," *Tissue Eng. Part A*, 23, Suppl. 1, S-93 (2017).
400. Y. Kim, J.L. Guo, J. Lam, and A.G. Mikos, "Preparation of Chondroitin Sulfate Crosslinked, Thermally Responsive Hydrogels for Osteochondral Tissue Regeneration," *Tissue Eng. Part A*, 23, Suppl. 1, S-122 (2017).
401. A.M. Tatar, E. Watson, N.D. Albert, A.G. Mikos, and D.P. Kontoyiannis, "Poly(Diol Fumarate) Microparticles Restore Wound Healing in a Neutropenic Murine Model of Cutaneous Fungal Infection," *Tissue Eng. Part A*, 23, Suppl. 1, S-131 (2017).
402. A.G. Mikos, A.M. Tatar, and S.R. Shah, "Tissue Engineering and Infectious Diseases," *Abstr. Bienn. Congr. Intern. Immunocompr. Host Soc.*, 20, Abstract 37 (June 2018).
403. A.M. Tatar, N.D. Albert, E. Watson, A.G. Mikos, and D.P. Kontoyiannis, "Treatment of Cutaneous Aspergillosis with Voriconazole-Loaded Poly(Diol Fumarate) Microparticles," *Abstr. Bienn. Congr. Intern. Immunocompr. Host Soc.*, 20, Abstract 125 (June 2018).
404. A.G. Mikos, "Biomaterials for Tissue Engineering and Regenerative Medicine," *Abstr. TERMIS World Congr.*, 5, Abstract PLL7 (September 2018).
405. A.G. Mikos, M.E. Wong, and A.M. Tatar, "*In Vivo* Bioreactors for Craniofacial Tissue Regeneration," *Abstr. TERMIS World Congr.*, 5, Abstract 44-SY-1 (September 2018).
406. J. Yang, A.G. Mikos, G. Koons, E. Watson, and E. Molina, "CaP Coated Biodegradable Mg Drug Loaded Bone Tissue Engineering Scaffold," *Abstr. TERMIS World Congr.*, 5, Abstract 01-P195 (September 2018).
407. Y. Kim, J.L. Guo, J. Lam, and A.G. Mikos, "Thermally Responsive and Tissue Adhesive Hydrogel for Osteochondral Tissue Regeneration," *Abstr. TERMIS World Congr.*, 5, Abstract 03-P206 (September 2018).
408. I. Lodoso-Torrecilla, N. van Gestel, E.-C. Grosfeld, L. Diaz-Gomez, F. Stumpel, K. Laperre, J.G.C. Wolke, B.T. Smith, J.J. Arts, A.G. Mikos, S. Hofmann, J.A. Jansen, and J.J.J.P. van den Beucken, "Multimodal Porogen Platforms for Calcium Phosphate Cements," *Abstr. Ann. Congr. Eur. Soc. Biomater.*, 29, Abstract 158 (September 2018).
409. L. Diaz-Gomez, S. Bittner, B. Smith, A. Melchiorri, and A.G. Mikos, "3D Printing of Horizontal Gradient Scaffolds for Bone Regeneration," *Abstr. Ann. Congr. Eur. Soc. Biomater.*, 29, Abstract 764 (September 2018).
410. A.G. Mikos, "Biomaterials for Tissue Engineering and Regenerative Medicine," *Abstr. Intern. Confer. Nanotechn. Bionanosci.*, 1, Abstract 110 (September 2018).
411. M. Smoak, A. Han, A. Kishan, E. Cosgriff-Hernandez, and A.G. Mikos, "Electrospun Decellularized Extracellular Matrix Scaffolds for Myogenic Differentiation," *Abstr. BMES Meeting*, Abstract TH-800 (October 2018).
412. S. Bittner, B. Smith, L. Diaz-Gomez, A. Melchiorri, J.P. Fisher, and A.G. Mikos, "Fabrication and Mechanical Characterization of 3D Printed Multilayered Heterogeneous Scaffolds," *Abstr. BMES Meeting*, Abstract FR-126 (October 2018).
413. H.A. Pearce, Y.S. Kim, J.L. Guo, and A.G. Mikos, "Mimicking Mesenchymal Stem Cell Condensation to Promote Articular Cartilage Regeneration," *Abstr. BMES Meeting*, Abstract FR-158 (October 2018).

414. A.G. Mikos, "Biomaterials for Tissue Engineering and Regenerative Medicine," *Abstr. Intern. Confer. Bioinform. Bioeng.*, 18, Abstract 18 (October 2018).
415. E.R. Molina, L.K. Chim, M.C. Salazar, S.M. Mehta, B.A. Menegaz, S.-E. Cherradi-Lamhamedi, T. Satish, D. McCall, S. Mohiuddin, A.M. Zaska, K.J. Grande-Allen, J.A. Ludwig, and A.G. Mikos, "Mechanically Tunable 3D Microenvironments Modulate Tumor Cell Phenotype: Models of Mechanotransduction and Drug Resistance in Osteosarcoma," *Cancer Res.*, 79 (13 Suppl), LB-028 (2019).
416. A.G. Mikos, S.M. Bittner, and L.A. Díaz Gómez, "Biofabrication Strategies for Complex Tissue Regeneration," *Abstr. ACS*, 257, Abstract I&EC-12 (March 2019).
417. A.G. Mikos, "Biomaterials for Tissue Engineering and Modeling Disease," *Abstr. TERMIS-Europe Meeting*, Abstract 251 (May 2019).
418. A.G. Mikos, J.P. Fisher, K. Schenke-Layland, H. Shin, J.A. Jansen, and X. Wang, "Tissue Engineering: The Impact, Growth, and Future of the Field; Highlighting the 25th Anniversary of the Journal," *Abstr. TERMIS-Europe Meeting*, Abstract 887 (May 2019).
419. L. Diaz-Gomez, P.D. Kontoyiannis, A.J. Melchiorri, and A.G. Mikos, "Biofabrication of Complex Tissue Scaffolds with Controlled Porosity and Composition Gradients," *Abstr. TERMIS-Europe Meeting*, Abstract 1144 (May 2019).
420. A.G. Mikos, "Biofabrication Technologies for Complex Tissue Regeneration," *Abstr. Intern. Conf. Regener. Biomed. Mater.*, 4, Abstract PL-2 (June 2019).
421. A.G. Mikos, "Biomaterials for Tissue Engineering and Disease Modeling," *Abstr. Chinese Biomater. Congr.*, Abstract 39 (August 2019).
422. E.R. Molina, L.K. Chim, M.C. Salazar, S.M. Mehta, B.A. Menegaz, S.-E. Lamhamedi-Cherradi, T. Satish, S. Mohiuddin, D. McCall, A.M. Zaska, D.R. Ingram, A.J. Lazar, W.-L. Wang, D.W. Scott, K.J. Grande-Allen, J.A. Ludwig, and A.G. Mikos, "Modeling Divergent Clinical Phenotypes in Osteosarcoma with Mechanically Tunable Microenvironments," *Abstr. BMES Meeting*, Abstract P-TH-876 (October 2019).
423. L.K. Chim, I. Williams, C.J. Bashor, G. Bao, and A.G. Mikos, "Mechanically Tunable Microenvironments to Model Tumor-Associated Macrophages in Osteosarcoma," *Abstr. BMES Meeting*, Abstract P-TH-897 (October 2019).
424. G.L. Koons, P.D. Kontoyiannis, L. Diaz-Gomez, A.J. Melchiorri, and A.G. Mikos, "Processing Temperatures for the Development of Polymeric Formulations for Extrusion-Based Three-Dimensional Printing with Growth Factors," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 19 (December 2019).
425. A.M. Navara, Y. Kim, and A.G. Mikos, "A Poly(N-Isopropylacrylamide)-Based Thermogelling Bioink for Extrusion Bioprinting," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 57 (December 2019).
426. S. Bittner, B. Smith, E. Watson, M. Smoak, L. Diaz-Gomez, E. Molina, Y. Kim, C. Hudgins, A. Melchiorri, K.J. Grande-Allen, and A.G. Mikos, "Multi-Material 3D Printing with Architectural and Compositional Gradients for Directed Osteogenic Differentiation and Spatial Segregation," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 145 (December 2019).
427. M.L. Bedell, A.J. Melchiorri, J. Aleman, A. Skardal, and A.G. Mikos, "A High-Throughput Approach to Compare the Biocompatibility of Candidate Bioink Formulations," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 164 (December 2019).
428. K. Hogan, M. Smoak, and A.G. Mikos, "Development of Photo-Crosslinkable Decellularized Cartilage Extracellular Matrix Bioinks," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 302 (December 2019).
429. M. Smoak, E. Watson, K. Hogan, and A.G. Mikos, "Development of Electrospun Decellularized Muscle-Derived Scaffolds with Tunable Physicochemical Properties for Tissue Engineering Applications," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 303 (December 2019).
430. L.K. Chim, I. Williams, C.J. Bashor, G. Bao, and A.G. Mikos, "Modeling Tumor-Associated Macrophages in Osteosarcoma within Mechanically Tunable 3D Microenvironments," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 338 (December 2019).
431. H.A. Pearce, Y. Kim, J.L. Guo, and A.G. Mikos, "Mimicking Mesenchymal Stem Cell Condensation to Promote Articular Cartilage Regeneration," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 346 (December 2019).

432. J.P. Fisher, A.G. Mikos, A. Atala, J. Yoo, B. Mahadik, S. Lee, and A. Melchiorri, "3D Bioprinting and Bioreactor-Based Approaches for Complex Tissue Engineering," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 392 (December 2019).
433. J.L. Guo, Y. Kim, V.Y. Xie, B.T. Smith, E. Watson, J. Lam, H.A. Pearce, P.S. Engel, and A.G. Mikos, "Modular, Click Functionalized Hydrogels for Cartilage Tissue Engineering," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 430 (December 2019).
434. Y. Kim, A.J. Chien, J.L. Guo, B.T. Smith, E. Watson, H.A. Pearce, G.L. Koons, A.M. Navara, J. Lam, J. Grande-Allen, and A.G. Mikos, "Cell-Laden, Poly(L-Lysine)-Incorporated Injectable Hydrogels for Cartilage Tissue Engineering," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 435 (December 2019).
435. A.G. Mikos, "Controlled Release for Tissue Engineering," *Abstr. Virtual Ann. Meeting Control. Rel. Soc.*, Abstract Founders Award Lecture (June 2020).
436. K. Hogan, M. Smoak, and A.G. Mikos, "Development of Cartilage Decellularized Extracellular Matrix Ink," *Abstr. TERMIS World Congr.*, 6, Abstract 1252 (November 2021).
437. M. Diba, G. Koons, M. Bedell, and A.G. Mikos "Design of Photo-Crosslinkable Colloidal Gels as Bio-Inks for 3D Printing of Tissue Engineering Constructs," *Abstr. TERMIS World Congr.*, 6, Abstract 1768 (November 2021).
438. E.Y. Jiang, A.M. Navara, H.A. Pearce, and A.G. Mikos*, "Injectable and 3D-Printable PNiPAAm-Based Hydrogels for Tissue Engineering," *Abstr. Intern. Symp. Rec. Adv. Drug Deliv. Syst.*, 18, pp. 22-23 (February 2022).
439. A.G. Mikos*, J.L. Guo, E.Y. Jiang, Y.S. Kim, A.M. Navara, and H.A. Pearce, "Injectable and 3D-Printable PNiPAAm-Based Hydrogels for Tissue Engineering," *Aegean Confer. Ser.*, 139, Abstract 30 (May 2022).
440. K.J. Hogan, M.R. Perez, and A.G. Mikos, "Development of Photocrosslinkable Colloidal Composite Decellularized Cartilage Extracellular Matrix Bioinks," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 114 (July 2022).
441. M.R. Perez, K.J. Hogan, and A.G. Mikos, "Incorporation of Decellularized Cartilage Extracellular Matrix Nanoparticles within Photo Reactive Colloidal Bioinks," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract 134 (July 2022).
442. E.Y. Jiang, H.A. Pearce, S. Desroches, and A.G. Mikos, "Physicochemical Characterization of Peptide Tethered Thiolated Gelatin Microparticles for Cartilage Tissue Engineering," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract A31 (July 2022).
443. A.M. Navara, Y. Kim, Y. Xu, C.L. Crafton, M. Diba, J.L. Guo, and A.G. Mikos, "A Poly(N-Isopropylacrylamide)-Based Dual-Gelling Bioink and Poloxamer Support Bath for High-Resolution Bioprinting," *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract B7 (July 2022).
444. S. Lee, G. Gillispie, J.P. Fisher, A.G. Mikos, J. Yoo, and A. Atala, "An Extrusion-Based Bioink Artifact for Quantifying Printability and the Influence of Printing Parameters and Cell Density on Bioink Printing Outcomes" *Abstr. TERMIS-Americas Ann. Confer. Exp.*, Abstract B12 (July 2022).
445. A.G. Mikos and H.A. Pearce, "Effects of Hydrogel Charge and LCST on Tissue Integration for Cartilage Tissue Engineering," *Abstr. TERMIS-Asia Pacific Confer.*, Abstract S6-A-01 (October 2022).
446. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. Ann. Confer. Eur. Soc. Biomater.*, 33, Abstract AW4 (September 2023).
447. A.G. Mikos, "Biomaterials for Regenerative Engineering," *Abstr. AIChE Meeting*, Abstract 270a (November 2023).
448. A.G. Mikos, "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," *Abstr. Osteo Sci. Found. Bone Symp.*, Abstract 13 (February 2024).
449. A.G. Mikos, "3D Printable Biomaterials for Tissue Engineering," *Abstr. ACS*, Abstract PMSE-3996959 (March 2024).
450. A.G. Mikos, "3D Printable Biomaterials for Tissue Engineering," *Abstr. World Biomater. Congr.*, 12, Abstract SY-386-0418 (May 2024).
451. A.G. Mikos, "Biomaterials for Tissue Engineering and Disease Modeling," *Abstr. World Biomater. Congr.*, 12, Abstract SY-397-4085 (May 2024).
452. A.G. Mikos, "Injectable Hydrogels for Tissue Engineering," *Abstr. World Biomater. Congr.*, 12, Abstract SY-265-0417 (May 2024).

453. A.G. Mikos, "Extracellular Matrix-Based Biomaterials for Tissue Engineering," *Abstr. Intern. Forum Frontiers Biomater. Sci. Eng.*, Abstract 16 (August 2024).
454. A.G. Mikos, "Tissue Engineering," *Abstr. Intern. Symp. Eng. Technol. Regen. Therapy*, Abstract 10 (August 2024).
455. V. Kolliopoulos, A. Letca, S. Chari, E. Jeon, M. Perez, and A.G. Mikos, "3D Printing Scaffolds for the Improved Regeneration and Repair of Bone Defects," *Aegean Confer. Ser.*, 183, Abstract 14 (May 2025).
456. L. Aboal, M. Pita-Vilar, C. Lorenzo-Alvarez, A.G. Mikos, M.T. Flores-Arias, and L. Diaz-Gomez, "Laser Micropatterning of 3D Scaffolds to Modulate Cellular Behavior," *Aegean Confer. Ser.*, 183, Abstract 22 (May 2025).
457. E.Y. Jiang, Z. Helal, R. Umurhan, M. Moise, V. Kolliopoulos, S. Desroches, H.A. Pearce, and A.G. Mikos, "Investigating the Effect of Charge on Controlled Release of a Model Osteogenic Peptide," *Aegean Confer. Ser.*, 183, Abstract 34 (May 2025).
458. A.G. Mikos, "Biomaterials for Tissue Engineering," *Abstr. BMEMat-Adv. Mater. Joint Symp. Intern. Meeting Biomed. Eng.*, 2, Abstract 11 (July 2025).

Non-Refereed Publications

1. A.G. Mikos, "Biomaterials and Tissue Engineering: Hypotheses and Perspectives," *AICHe MESD Newsletter*, 24, 12 (1993).
2. C.A. Vacanti and A.G. Mikos, "Letter from the Editors," *Tissue Eng.*, 1, 1-2 (1995).
3. A.G. Mikos, "Guest Editorial," *Biomaterials*, 17, 81 (1996).
4. A.G. Mikos, "Guest Editorial," *Biomaterials*, 17, 235 (1996) (same as no. 3).
5. C.A. Vacanti and A.G. Mikos, "Letter from the Editors: On Voluntary Standards," *Tissue Eng.*, 4, 3 (1998).
6. A.G. Mikos, "Section Five: Active Implants," in *Handbook of Biomaterials Evaluation*, 2nd ed., A.F. von Recum, Ed., Taylor & Francis, Washington, D.C., 1998, p. 373.
7. Y.H. Bae and A.G. Mikos, "Cells for Drug Delivery Platforms," *Adv. Drug Deliv. Rev.*, 42, 1-2 (2000).
8. A.G. Mikos and D.J. Mooney, "Preface," *J. Drug Targ.*, 9, 395-396 (2001).
9. J.P. Fisher and A.G. Mikos, "Section V: Tissue Engineering," in *Tissue Engineering and Artificial Organs*, The Biomedical Engineering Handbook, Vol. 3, 3rd Ed., J.D. Bronzino, Ed., CRC Press, Boca Raton, 2006, pp. V-1-V-4.
10. A.G. Mikos and P.C. Johnson, "Editorial: Redefining *Tissue Engineering*... and Our New Rapid Publication Policy," *Tissue Eng.*, 12, 1379-1380 (2006).
11. W.T. Godbey and A.G. Mikos, "Gene Delivery for Tissue Engineering," *Adv. Drug Deliv. Rev.*, 58, 465-466 (2006).
12. F. Bronner, M.C. Farach-Carson, and A.G. Mikos, "Preface," in *Engineering of Functional Skeletal Tissues*, F. Bronner, M.C. Farach-Carson, and A.G. Mikos, Eds., Topics in Bone Biology, Vol. 3, Springer-Verlag, London, 2007, pp. v-viii.
13. A. Domb and A.G. Mikos, "Matrices and Scaffolds for Drug Delivery in Tissue Engineering," *Adv. Drug Deliv. Rev.*, 59, 185-186 (2007).
14. J.P. Fisher, A.G. Mikos, and P.C. Johnson, "Tomorrow's Tissue Engineering Triumphs Require Understanding of Today's Achievements," *Tissue Eng. Part B: Reviews*, 14, 1 (2008).
15. J.A. Jansen, A.G. Mikos, and P.C. Johnson, "A New Focus on the Methods of Tissue Engineering," *Tissue Eng. Part C: Methods*, 14, 1 (2008).
16. J.P. Fisher, A.G. Mikos, P.C. Johnson, and J.A. Jansen, "A Continued Commitment to Quality Research in Tissue Engineering," *Tissue Eng. Part A*, 14, 1457-1458 (2008).
17. J.P. Fisher, A.G. Mikos, P.C. Johnson, and J.A. Jansen, "A Continued Commitment to Quality Research in Tissue Engineering," *Tissue Eng. Part B: Reviews*, 14, 217-218 (2008) (same as no. 16).
18. J.P. Fisher, A.G. Mikos, P.C. Johnson, and J.A. Jansen, "A Continued Commitment to Quality Research in Tissue Engineering," *Tissue Eng. Part C: Methods*, 14, 177-178 (2008) (same as no. 16).
19. E. Cosgriff-Hernandez and A.G. Mikos, "New Biomaterials as Scaffolds for Tissue Engineering," *Pharm. Res.*, 25, 2345-2347 (2008).
20. F.-Z. Cui and A.G. Mikos, "Important Topics in the Future of Tissue Engineering - Comments from

- the Participants of the 5th International Conference on Tissue Engineering at Kos, Greece,” *Regener. Biomater.*, 103-106 (2014).
21. A.G. Mikos, P.C. Johnson, J.P. Fisher, and J.A. Jansen, “The Maturation of Tissue Engineering,” *Tissue Eng. Part A*, 21, 2473-2475 (2015).
 22. S. Zhang and A.G. Mikos, “Biomaterials for Regenerative Medicine,” *Adv. Healthcare Mater.*, 9, 2001920 (2pp) (2020).
 23. K. Zhang, A.G. Mikos, R.L. Reis, and X. Zhang, “Translation of Biomaterials from Bench to Clinic,” *Bioact. Mater.*, 18, 337-338 (2022).
 24. J.L. Guo, L.E. Kavraki, and A.G. Mikos, “Editorial for Special Issue on Machine Learning in Tissue Engineering,” *Tissue Eng. Part A*, 29, 1 (2023).
 25. J.P. Fisher, A.G. Mikos, K. Schenke-Layland, H. Shin, J.A. Jansen, and X. Wang, “30 Years of Tissue Engineering,” *Tissue Eng. Part A*, 30, 3-4 (2024).

Book Reviews

1. A.G. Mikos and N.A. Peppas, Book Review of *Adhesive Chemistry: Developments and Trends*, by L.-H. Lee, Ed., *J. Controlled Release*, 3, 212 (1986).
2. A.G. Mikos and N.A. Peppas, Book Review of *Polymeric Nanoparticles and Microspheres*, by P. Guiot and P. Couvreur, Eds., *Polym. News*, 12, 32 (1986).
3. A.G. Mikos and N.A. Peppas, Book Review of *Adhesion 10*, by K.W. Allen, Ed., *J. Controlled Release*, 4, 303-304 (1987).
4. A.G. Mikos, Book Review of *Multiphase Biomedical Materials*, by T. Tsuruta and A. Nakajima, Eds., *J. Controlled Release*, 16, 366-367 (1991).
5. A.G. Mikos, Book Review of *Degradable Materials: Perspectives, Issues and Opportunities*, by S.A. Barenberg, J.L. Brash, R. Narayan, and A.E. Redpath, Eds., *J. Controlled Release*, 17, 208 (1991).
6. J.-L. De Keyser and A.G. Mikos, Book Review of *Lehrbuch der Pharmazeutischen Chemie* (Translation: *Textbook of Pharmaceutical Chemistry*), by H. Auterhoff, J. Knabe, and H.-D. Höltje, *J. Controlled Release*, 18, 81 (1992).
7. A.G. Mikos, Book Review of *Polymeric Biomaterials*, by S. Dumitriu, *Eur. J. Pharm. Biopharm.*, 40, 351 (1994).
8. L.J. Suggs and A.G. Mikos, Book Review of *Synthesis of Biocomposite Materials, Chemical and Biological Modifications of Natural Polymers*, by Y. Imanishi, *J. Controlled Release*, 32, 202 (1994).
9. A.C. Jen and A.G. Mikos, Book Review of *Cell Mechanics and Cellular Engineering*, by V.C. Mow, F. Guilak, R. Tran-Son-Tay, and R.M. Hochmuth, *J. Controlled Release*, 38, 95 (1996).
10. S.L. Ishaug and A.G. Mikos, Book Review of *Principles of Cell Adhesion*, by P.D. Richardson and M. Steiner, *J. Controlled Release*, 41, 296 (1996).
11. M.D. Timmer and A.G. Mikos, Book Review of *Tissue Engineering and Biodegradable Equivalents: Scientific and Clinical Applications*, by K.-U. Lewandrowski, D.L. Wise, D.J. Trantolo, J.D. Gresser, M.J. Yaszemski, and D.E. Altobelli, *J. Controlled Release*, 92, 399-400 (2003).

Presentations in National and International Meetings

1. A.G. Mikos*, C.G. Takoudis, and N.A. Peppas, “Modeling of Suspension Copolymerization/Crosslinking of Styrene,” Annual AIChE Meeting, San Francisco, California, November 27, 1984.
2. A.G. Mikos, C.G. Takoudis*, and N.A. Peppas, “Integral Methods in Polymerization Reaction Engineering,” Integral Methods in Science and Engineering 1985, Arlington, Texas, March 18, 1985.
3. A.G. Mikos, N.A. Peppas*, and C.G. Takoudis, “Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinylbenzene,” National ACS Meeting, Miami Beach, Florida, May 1, 1985.
4. N.A. Peppas* and A.G. Mikos, “Polymer/Glycoprotein Chain Interpenetration in Bioadhesion,” 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985.
5. A.G. Mikos* and N.A. Peppas, “The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA,” 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 11, 1985.

6. N.A. Peppas* and A.G. Mikos, "Molecular Aspects of Polymer Adhesion on Mucus," National ACS Meeting, Chicago, Illinois, September 9, 1985.
7. A.G. Mikos*, C.G. Takoudis, and N.A. Peppas, "Kinetic Modelling of Copolymerization-Crosslinking Reactions," Annual AIChE Meeting, Chicago, Illinois, November 14, 1985.
8. N.A. Peppas* and A.G. Mikos, "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," Annual AIChE Meeting, Chicago, Illinois, November 15, 1985.
9. N.A. Peppas* and A.G. Mikos, "Measurement of Bioadhesive Force between a Polymer Microparticle and Mucin Gels," International Biomedical Engineering Symposium, Salt Lake City, Utah, January 21, 1986.
10. A.G. Mikos and N.A. Peppas*, "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986.
11. N.A. Peppas* and A.G. Mikos, "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," 10th European Congress on Biomaterials, Bologna, Italy, September 15, 1986.
12. N.A. Peppas*, A.G. Mikos, B.D. Barr-Howell, and L.M. Eshelman, "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," 13th Annual Meeting of the European Society for Artificial Organs, Avignon, France, September 18, 1986.
13. N.A. Peppas* and A.G. Mikos, "Polymer Microparticles on Biological Surfaces," Annual AIChE Meeting, Miami Beach, Florida, November 5, 1986.
14. A.G. Mikos and N.A. Peppas*, "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," MRS Fall Meeting, Boston, Massachusetts, December 1, 1987.
15. A.G. Mikos* and N.A. Peppas, "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," MRS Fall Meeting, Boston, Massachusetts, December 3, 1987.
16. A.G. Mikos and N.A. Peppas*, "Fracture Mechanics of Low Molecular Weight Polymers," MRS Spring Meeting, Reno, Nevada, April 5, 1988.
17. N.A. Peppas* and A.G. Mikos, "Kinetics of Mucus-Polymer Interactions," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 23, 1989.
18. A.G. Mikos*, A.J. Thorsen, L.A. Czerwonka, Y. Bao, D.N. Winslow, J. Stein, J. Vacanti, and R. Langer, "Preparation and Characterization of Poly(L-Lactic Acid) Foams," Annual AIChE Meeting, Chicago, Illinois, November 16, 1990.
19. A.G. Mikos* and N.A. Peppas, "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," MRS Fall Meeting, Boston, Massachusetts, November 28, 1990.
20. A.G. Mikos* and C. Kiparissides, "Asymmetric Membrane Formation in the Heterogeneous Polymerization of Methyl Methacrylate," MRS Fall Meeting, Boston, Massachusetts, November 29, 1990.
21. A.G. Mikos*, "Fracture of and Adhesion between Biological and Synthetic Macromolecular Materials" (LaMer Award Lecture), 65th Colloid and Surface Science Symposium, Norman, Oklahoma, June 19, 1991.
22. A.G. Mikos*, E. Mathiowitz, N.A. Peppas, and R. Langer, "A Method of Measuring Mucoadhesive Forces on Polymeric Microparticles," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, The Netherlands, July 9, 1991.
23. A.G. Mikos*, A.M. Whiteman, A.J. Thorsen, M.D. Lyman, J.E. Stein, S. Uyama, D.E. Ingber, J.P. Vacanti, and R. Langer, "Creep Behavior of Poly(Lactic-co-Glycolic Acid) Foams for Liver Regeneration," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
24. J.E. Stein, A.G. Mikos, D. Mooney*, G. Sarakinos, J.C. Gilbert, D.E. Ingber, J.P. Vacanti, and R. Langer, "Polymer Scaffolds for Hepatocyte Transplantation," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
25. C.A. Vacanti*, J.P. Vacanti, L. Cima, A.G. Mikos, and R. Langer, "Synthetic Biodegradable Polymers Can Be Configured to Act as a Template for Cell Transplantation and the Generation of New Cartilage and Bone," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
26. L.E. Freed*, S.B. Weinstock, A.G. Mikos, J.C. Marquis, A. Nohria, A.J. Grodzinsky, and R. Langer, "Chondrocytes Cultured on Synthetic Biodegradable Polymers Grow and Secrete a Cartilage-Like Matrix," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
27. A.G. Mikos, H.-L. Lai*, S.M. Leite, J.A. Tamada, and R. Langer, "Characterization of Degradation of Poly(L-Lactic Acid) Foams," Annual AIChE Meeting, Los Angeles, California, November 20, 1991.

28. A.G. Mikos, H.L. Wald*, G. Sarakinos, S.M. Leite, and R. Langer, "Biodegradable Cell Transplantation Devices for Tissue Regeneration," MRS Fall Meeting, Boston, Massachusetts, December 6, 1991.
29. A.G. Mikos*, D.E. Ingber, J.P. Vacanti, and R. Langer, "Hepatocyte Transplantation with Prevascularized Biodegradable Polymer Foams," 10th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 19, 1992.
30. A.G. Mikos*, G. Sarakinos, M.D. Lyman, D.E. Ingber, J.P. Vacanti, and R. Langer, "Prevascularization of Biodegradable Polymer Scaffolds for Hepatocyte Transplantation," National ACS Meeting, San Francisco, California, April 6, 1992.
31. A.G. Mikos*, "Biodegradable Bioadhesive Systems," 2nd Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, May 27, 1992.
32. A.G. Mikos*, "Biodegradable Polymers for Tissue Regeneration," 4th Hispanic and 1st Hispanic-Portuguese Congress on Biotechnology (BIOTEC-92), Santiago de Compostela, Spain, September 17, 1992.
33. A.G. Mikos*, Y. Bao, L.G. Cima, D.E. Ingber, J.P. Vacanti, and R. Langer, "Bonded Poly(Glycolic Acid) Fiber Structures for Cell Transplantation," Annual AIChE Meeting, Miami Beach, Florida, November 2, 1992.
34. K. Zygorakis and A.G. Mikos*, "Discrete Modeling of Surface Erosion of Biodegradable Copolymers," Annual AIChE Meeting, Miami Beach, Florida, November 6, 1992.
35. A.G. Mikos*, "Biodegradable Polymer Scaffolding for Tissue Regeneration and Repair," 11th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1993.
36. A.G. Mikos*, "Biodegradable Polymer Scaffolding for Tissue Regeneration," The Monte Verità Conference 1993 on Biocompatible Materials Systems, Ascona, Switzerland, October 13, 1993.
37. M.J. Yaszemski*, A.G. Mikos, W.C. Hayes, and R. Langer, "A Temporary Replacement for Trabecular Bone: Design, Synthesis, and Characterization of a Degradable Polymeric Biomaterial," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
38. M.C. Wake, C.W. Patrick, Jr., and A.G. Mikos*, "Creation of Vascularized Beds for Cell Transplantation," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
39. R.C. Thomson*, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "A Novel Biodegradable Poly(Lactic-co-Glycolic Acid) Foam for Bone Regeneration," MRS Fall Meeting, Boston, Massachusetts, November 29, 1993.
40. S.L. Ishaug*, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Adhesion on Biodegradable Polymer Substrates," MRS Fall Meeting, Boston, Massachusetts, November 30, 1993.
41. M.J. Yaszemski*, R.G. Payne, and A.G. Mikos, "Biodegradable Polymer Composites for Temporary Replacement of Trabecular Bone: The Effect of Polymer Molecular Weight on Composite Strength," MRS Fall Meeting, Boston, Massachusetts, December 1, 1993.
42. R.G. Payne*, A.G. Mikos, and M.J. Yaszemski, "The Influence of Polymer Molecular Weight on Compressive Strength of a Composite for Use in Biodegradable Bone Cement," 12th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 1994.
43. R.C. Thomson*, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Biodegradable Poly(Lactic-co-Glycolic Acid) Scaffolds to Engineer Bone," 12th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1994.
44. S.L. Ishaug*, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Culture on Biodegradable Polymers as an *In Vitro* Model of Bone Regeneration," 12th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1994.
45. M.J. Yaszemski, A.G. Mikos*, R.G. Payne, and W.C. Hayes, "Synthesis and Purification Reaction Schemes for Poly(Propylene Fumarate), A Novel Degradable Biomaterial for Orthopaedic Applications," 20th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 8, 1994.
46. G.G. Giordano*, D. Lahiri-Munir, S.L. Ishaug, A.G. Mikos, and C.A. Garcia, "RPE Culture on Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Sarasota, Florida, May 4, 1994.

47. A.G. Mikos*, R. Bizios, S.L. Ishaug, R.C. Thomson, M.C. Wake, and M.J. Yaszemski, "Polymer/Cell Constructs to Engineer Organs," 5th International ITV Conference on Biomaterials; Biohybrid Organs: Combination of Biomaterials and Cells to Functional Units, Denkendorf, Germany, June 8, 1994.
48. R.L. Cleek*, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Proliferation via Controlled Release of Antisense Oligonucleotides," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 28, 1994.
49. A.G. Mikos*, T.B. Aufdemorte, R. Bizios, S.L. Ishaug, R.G. Payne, R.C. Thomson, and M.J. Yaszemski, "Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone," 2nd World Congress of Biomechanics, Amsterdam, The Netherlands, July 13, 1994.
50. A.G. Mikos*, "Bioadhesive Polymers for Controlled Drug Delivery," Surfaces in Biomaterials, Scottsdale, Arizona, September 8, 1994.
51. R.L. Cleek, C. Stine, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos*, "Antisense Oligonucleotide Delivery Targeted to Tenascin via Biodegradable Polymer Systems to Inhibit SMC Growth," Annual BMES Fall Meeting, Tempe, Arizona, October 15, 1994.
52. M.J. Yaszemski, R.G. Payne*, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "The Uncatalyzed Synthesis of Poly(Propylene Fumarate), Its Strength and Bone Ingrowth Characteristics as a Material for Orthopaedic Use," Annual BMES Fall Meeting, Tempe, Arizona, October 16, 1994.
53. R.C. Thomson*, M.J. Yaszemski, J.M. Powers, and A.G. Mikos, "Fabrication of Poly(Lactic-co-Glycolic Acid)/Glass Ceramic Fiber Composite Foams for Orthopaedic Applications," Annual BMES Fall Meeting, Tempe, Arizona, October 16, 1994.
54. G.G. Giordano*, D. Lahiri-Munhir, R.C. Thomson, S.L. Ishaug, A.G. Mikos, and C.A. Garcia, "Biodegradable Polymer Substrates for Retinal Pigment Epithelium Cell Transplantation," Annual BMES Fall Meeting, Tempe, Arizona, October 16, 1994.
55. R.L. Cleek, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos*, "Antisense Oligonucleotides Released from a Biodegradable Polymer Matrix Inhibit Smooth Muscle Cell Proliferation," Annual AIChE Meeting, San Francisco, California, November 16, 1994.
56. S.L. Ishaug*, S.A. Hoffman, M.J. Yaszemski, R. Bizios, and A.G. Mikos, "Osteoblast Culture on Poly(α -Hydroxy Esters) as an *In Vitro* Model of Bone Engineering," Annual AIChE Meeting, San Francisco, California, November 16, 1994.
57. H.A. von Recum*, R.L. Cleek, S.G. Eskin, and A.G. Mikos, "Modulated Release of Lactic Acid During Poly(L-Lactic Acid) Degradation," Annual AIChE Meeting, San Francisco, California, November 16, 1994.
58. C.M. Bardsley*, R.L. Cleek, S.G. Eskin, and A.G. Mikos, "Poly(Lactic-co-Glycolic Acid)/ Poly(Ethylene Glycol) Blends for Use in Vascular Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 16, 1994.
59. R.G. Payne*, M.J. Yaszemski, W.C. Hayes, R.S. Langer, T.B. Aufdemorte, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design, Synthesis, and Testing of a Novel Degradable Material for Orthopaedic Applications," Annual AIChE Meeting, San Francisco, California, November 16, 1994.
60. A.G. Mikos*, "Polymer Fabrication," First International Congress on Cellular Therapy & Tissue Engineering, BioEast'95, Washington, D.C., January 9, 1995.
61. M.J. Yaszemski, R.G. Payne*, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Biomaterial," 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.
62. R.C. Thomson*, M.J. Yaszemski, J.M. Powers, T. Harrigan, and A.G. Mikos, "Reinforcement of Poly(α -Hydroxy Ester) Foams for Orthopedic Application Using Hydroxyapatite Short Fibers," 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.
63. S.L. Ishaug*, M.J. Yaszemski, R. Bizios, T.B. Aufdemorte, and A.G. Mikos, "Migratory Characteristics of Osteoblast and Bone Cultures on Synthetic Biodegradable Polymers," 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.
64. M.J. Miller*, D.P. Goldberg, A.W. Yasko, and A.G. Mikos, "An *In-Vivo* Model for Tissue Engineered Bone Flaps," 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.

65. R.L. Cleek*, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "Antisense Oligonucleotides Released from a Biodegradable Polymer Matrix Inhibit Smooth Muscle Cell Proliferation," 13th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 16, 1995.
66. A.G. Mikos, S.L. Ishaug, R.C. Thomson, R.G. Payne*, and M.J. Yaszemski, "Engineering Human Trabecular Bone," American Association for the Advancement of Science Annual Meeting and Science Innovation Exposition, Atlanta, Georgia, February 21, 1995.
67. H.A. von Recum, R.L. Cleek, S.G. Eskin, and A.G. Mikos*, "Molecular Weight Effects on Lactic Acid Release During Poly(L-Lactic Acid) Degradation," 21st Annual Meeting of the Society For Biomaterials, San Francisco, California, March 21, 1995.
68. M.J. Yaszemski*, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "A Temporary Replacement for Trabecular Bone: The Design and Testing of a Novel Degradable Composite Material," 21st Annual Meeting of the Society For Biomaterials, San Francisco, California, March 21, 1995.
69. M.J. Yaszemski*, R.G. Payne, T.B. Aufdemorte, W.C. Hayes, R.S. Langer, and A.G. Mikos, "The *In Vitro* Mechanical Strength and *In Vivo* Bone Ingrowth of a Degrading Polymeric Composite Biomaterial," MRS Spring Meeting, San Francisco, California, April 17, 1995.
70. R.C. Thomson, M.J. Yaszemski, J.M. Powers, T.P. Harrigan, and A.G. Mikos*, "Poly(α -Hydroxy Ester)/Short Fiber Hydroxyapatite Composite Foams for Orthopedic Application," MRS Spring Meeting, San Francisco, California, April 17, 1995.
71. L.J. Suggs*, R.G. Payne, E.Y. Kao, L.B. Alemany, M.J. Yaszemski, K.K. Wu, and A.G. Mikos, "The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(Propylene Fumarate) and Poly(Ethylene Oxide)," MRS Spring Meeting, San Francisco, California, April 19, 1995.
72. A.G. Mikos*, "Delivery of Antisense Oligonucleotides with Biodegradable Polymers," 41st ASAIO (American Society for Artificial Internal Organs) Annual Conference, Chicago, Illinois, May 6, 1995.
73. R.C. Thomson, J.H. Colier, A.G. Mikos, C.A. Garcia, and G.G. Giordano*, "Physical Characteristics of Biodegradable Polymer Substrates for RPE Cells," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 15, 1995.
74. G.G. Giordano*, I.H. Husaini, D. Lahiri-Munir, A.G. Mikos, and C.A. Garcia, "Biodegradable Polymer Films for RPE Cell Transplantation," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 15, 1995.
75. R.C. Thomson*, G.G. Giordano, J.H. Collier, S.L. Ishaug, A.G. Mikos, D. Lahiri-Munir, S. Cumber, and C.A. Garcia, "Biodegradable Poly(α -Hydroxy Ester) Thin Films as Temporary Substrates for Retinal Pigment Epithelium Cell Transplantation," ASME Summer Bioengineering Conference, Beaver Creek, Colorado, June 29, 1995.
76. S.L. Ishaug, M.J. Yaszemski*, R. Bizios, T.B. Aufdemorte, and A.G. Mikos, "Osteoblast Migration on Biodegradable Poly(α -Hydroxy Esters)," ASME Summer Bioengineering Conference, Beaver Creek, Colorado, June 29, 1995.
77. A.G. Mikos*, "Tissue-Engineered Trabecular Bone," International Business Communications Conference on Tissue Engineering and Repair, Washington, D.C., August 9, 1995.
78. G.M. Crane*, S.L. Ishaug, M.J. Miller, A.W. Yasko, T.B. Aufdemorte, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Porous Poly(Lactic-co-Glycolic Acid) Seeded with Stromal Osteoblast Cells," Annual BMES Fall Meeting, Boston, Massachusetts, October 6, 1995.
79. M.J. Miller*, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, and A.G. Mikos, "An *In Vivo* Model for Tissue-Engineered Bone Flaps," Annual BMES Fall Meeting, Boston, Massachusetts, October 8, 1995.
80. A.G. Mikos*, "Engineering Trabecular Bone Using Biodegradable Polymers," Taniguchi Conference on the Tissue Engineering with the Use of Biomedical Polymers, Kyoto, Japan, November 9, 1995.
81. A.D. Ouellette*, J.-L. Tang, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Targeted Gene Delivery to Endothelial Cells to Prevent Thrombosis and Restenosis," Annual AIChE Meeting, Miami Beach, Florida, November 14, 1995.
82. A.C. Jen, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos*, "Three Dimensional *In Vitro* Polymer-Matrix/Cell Model for Bone Formation," Annual AIChE Meeting, Miami Beach, Florida, November 15, 1995.

83. M.J. Miller*, D.P. Goldberg, A.W. Yasko, J.C. Lemon, W.C. Satterfield, M.C. Wake, A.G. Mikos, and M.J. Yaszemski, "Prefabricated Bone Flaps in Sheep," Annual ASRM (American Society for Reconstructive Microsurgery) Meeting, Tucson, Arizona, January 16, 1996.
84. G.M. Crane*, S.L. Ishaug, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Bone Formation Using Biodegradable Polymer/Stromal Osteoblast Constructs," Keystone Symposium on Tissue Engineering, Taos, New Mexico, January 24, 1996.
85. M.J. Yaszemski* and A.G. Mikos, "Degradable Polymers with Osteoblast Transplantation as Strategies for Bone Tissue Engineering," Cell Culture Engineering V (Engineering Foundation Conferences), San Diego, California, January 30, 1996.
86. A.D. Ouellette*, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "Synthesis and Characterization of a Poly(L-lysine)/Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
87. S.J. Peter*, P.A. Engel, L.B. Alemany, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Synthesis and Characterization of an Osteoinductive, Injectable, Biodegradable Bone Cement," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
88. M.C. Wake*, P.K. Gupta, and A.G. Mikos, "Fabrication of Pliable Biodegradable Polymer Foams to Engineer Soft Tissues," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
89. S.L. Ishaug, G.M. Crane*, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Calvaria Osteoblast Culture in Biodegradable Polymer Scaffolds," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
90. A.C. Jen*, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
91. E.K. Beahm*, R.C. Thomson, M.J. Yaszemski, A.G. Mikos, and M.J. Miller, "Guided Bone Growth in Sheep," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
92. S.L. Ishaug*, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Bone Formation Using Stromal Osteoblasts Cultured in Biodegradable Polymer Foams," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
93. L.J. Suggs*, M.J. Yaszemski, K.K. Wu, and A.G. Mikos, "The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(propylene fumarate) and Poly(ethylene glycol)," 14th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 1996.
94. G.M. Crane, S.L. Ishaug*, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "Three-Dimensional Bone Formation Using Biodegradable Polymer/Stromal Osteoblast Constructs," 15th Southern Biomedical Engineering Conference, Dayton, Ohio, March 31, 1996.
95. A.G. Mikos*, "Biomaterials for Tissue Engineering" (Outstanding Young Investigator Award Presentation), MRS Spring Meeting, San Francisco, California, April 9, 1996.
96. L. Lu*, R.C. Thomson, A.G. Mikos, R.C. Hunt, G.G. Giordano, C.A. Garcia, and D. Lahiri-Munir, "Human RPE Like Cell Culture on Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, April 21, 1996.
97. S.L. Ishaug, G.M. Crane, and A.G. Mikos*, "3-D Osteoblast Culture in Biodegradable Polymer Foams," 5th World Biomaterials Congress, Toronto, Canada, May 30, 1996.
98. M.C. Wake*, P.K. Gupta, and A.G. Mikos, "Pliable Degradable Polymer Foams to Engineer Soft Tissues," 5th World Biomaterials Congress, Toronto, Canada, June 2, 1996.
99. A.C. Jen*, S.L. Ishaug, M.J. Yaszemski, L.V. McIntire, and A.G. Mikos, "Three Dimensional *In Vitro* Mechanical Model for Bone Formation," 5th World Biomaterials Congress, Toronto, Canada, June 2, 1996.
100. A.G. Mikos*, "Osteoblast Transplantation and Bone Tissue Engineering," International Symposium on Endocrine Cell Transplantation and Genetic Engineering, Giessen, Germany, June 18, 1996.
101. A.D. Ouellette*, K.-H. Ruan, A.-L. Tsai, K.K. Wu, and A.G. Mikos, "A Poly(L-Lysine)/ Anti-Thrombomodulin Conjugate for Targeted Gene Delivery to Endothelial Cells," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996.

102. S.J. Peter and A.G. Mikos*, "Injectable Cell Adhesion Specific Biodegradable Polymers," 5th World Congress of Chemical Engineering, San Diego, California, July 16, 1996.
103. S.L. Ishaug, G.M. Crane, M.J. Yaszemski, and A.G. Mikos*, "Three-Dimensional Osteoblast Migration in Biodegradable Polymer Foams," 5th World Congress of Chemical Engineering, San Diego, California, July 16, 1996.
104. R.L. Cleek, A.G. Mikos*, A.A. Rege, L. Denner, and S.G. Eskin, "Controlled Delivery of Inhibitors of Smooth Muscle Cell Proliferation Using Biodegradable Polymer Microparticles," 5th World Congress of Chemical Engineering, San Diego, California, July 17, 1996.
105. A.C. Jen, A.G. Mikos*, J. Mayer, and E. Wintermantel, "Biocompatible Fiber-Reinforced Composites for Culturing Osteoblasts," Annual BMES Fall Meeting, State College, Pennsylvania, October 6, 1996.
106. S.J. Peter, J. Nolley, P.S. Engel, L.B. Alemany, A.G. Mikos*, M.J. Miller, and M.J. Yaszemski, "Synthesis and Characterization of a Functionalized, Unsaturated Linear Polyester," Annual AIChE Meeting, Chicago, Illinois, November 13, 1996.
107. R.L. Cleek*, A.G. Mikos, A.A. Rege, L. Denner, and S.G. Eskin, "Inhibition of bFGF-Stimulated Smooth Muscle Cell Proliferation by a bFGF Antibody Released from Biodegradable Polymer Microparticles," Annual AIChE Meeting, Chicago, Illinois, November 14, 1996.
108. L.J. Suggs*, E.Y. Kao, A.G. Mikos, M.J. Yaszemski, and K.K. Wu, "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," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
109. R.D. Bostrom* and A.G. Mikos, "Effects of Cell Culture Conditions on Bone Tissue Growth Penetration into Biodegradable Polymer Scaffolds," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
110. D.A. Ray, A.W. Yasko*, S.L. Ishaug, G.M. Crane, and A.G. Mikos, "Orthotopic Bone Formation Using Porous Poly(Lactic-co-Glycolic Acid) Implants Seeded with Syngeneic Osteoblasts," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
111. A.C. Jen, J.L. Almaguer, S.D. Cho, M.S. Widmer, A.G. Mikos*, K. Akanbi, and M.C. Farach-Carson, "Three-Dimensional Polymer/Cell Mechanical Model for Bone Formation," Post-ASME Workshop on Cell Biomechanics, Georgia Institute of Technology, Atlanta, Georgia, November 23, 1996.
112. J.A. Nolley*, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Degradation Study of a Poly(Propylene Fumarate) Based Biodegradable Bone Cement," Inaugural TES Meeting, Orlando, Florida, December 13, 1996.
113. A.W. Yasko*, S.L. Ishaug-Riley, G.M. Crane, D.A. Ray, and A.G. Mikos, "Orthotopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," Inaugural TES Meeting, Orlando, Florida, December 13, 1996.
114. M.J. Miller*, A.G. Mikos, M.A. Schusterman, and L.V. McIntire, "The Evolution of a Strategy for Progress in Tissue Engineering," Inaugural TES Meeting, Orlando, Florida, December 14, 1996.
115. G.R.D. Evans*, K. Brandt, A.G. Mikos, E. Peden, G.M. Crane, and S.L. Ishaug-Riley, "Biodegradable Tissue Engineered Polymer Nerve Conduits: Their Use as Scaffold in Peripheral Nerve Regeneration," Inaugural TES Meeting, Orlando, Florida, December 14, 1996.
116. S.L. Ishaug-Riley*, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Ectopic Bone Formation Using Three Dimensional Osteoblast/Polymer Constructs," Annual Meeting of Orthopaedic Research Society, San Francisco, California, February 9, 1997.
117. D.J. Kim*, S.J. Peter, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Osteoblastic Cellular Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 13, 1997.
118. M.S. Widmer*, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture of Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
119. G.R.D. Evans, K. Brandt, M.C. Wake, P. Gupta, T. Savel*, M.S. Widmer, C.W. Patrick, Jr., and A.G. Mikos, "Tissue Engineered Nerve Conduits: The Use of Biodegradable Polymer Scaffolds in Peripheral Nerve Regeneration. A Preliminary Report," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
120. R.L. Cleek*, A.A. Rege, L. Denner, S.G. Eskin, and A.G. Mikos, "bFGF Antibody Released from Biodegradable Polymer Microparticles Inhibits bFGF-Stimulated Smooth Muscle Cell Proliferation,"

- 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
121. L. Lu*, C.A. Garcia, and A.G. Mikos, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Synthetic Biodegradable Polymers," 15th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 14, 1997.
 122. A.G. Mikos*, S.L. Riley, G.M. Crane, M.J. Miller, M.J. Yaszemski, and A.W. Yasko, "Cell Based Delivery Systems for Bone Growth Factors," 8th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 24, 1997.
 123. M. Smith*, M.J. Miller, G.M. Crane, A. Khoo, A. Gurlek, and A.G. Mikos, "Cranial Defect Repair with Osteoblast Transplantation," 42nd Annual Meeting of the Plastic Surgery Research Council, Galveston, Texas, February 28, 1997.
 124. L. Lu, A.G. Mikos*, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," National ACS Meeting, San Francisco, California, April 16, 1997.
 125. S.L. Ishaug-Riley*, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Ectopic Bone Formation by Marrow Stromal Osteoblast Transplantation Using Poly(DL-Lactic-co-Glycolic Acid) Foams Implanted into the Rat Mesentery," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
 126. L.J. Suggs*, E.Y. Kao, R.S. Krishnan, C.W. Patrick, and A.G. Mikos, "Evaluation of a Biodegradable Block Copolymer for Use as a Vascular Implant," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
 127. M.S. Widmer*, A.C. Jen, R.D. Bostrom, and A.G. Mikos, "Cell Seeding in Three Dimensional Scaffolds," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 1, 1997.
 128. R.L. Cleek*, A.A. Rege, L.A. Denner, S.G. Eskin, and A.G. Mikos, "Inhibition of Smooth Muscle Cell Growth In Vitro by an Antisense Oligodeoxynucleotide Released from Poly(DL-Lactic-co-Glycolic Acid) Microparticles," 23rd Annual Meeting of the Society For Biomaterials, New Orleans, Louisiana, May 2, 1997.
 129. L. Lu*, A.G. Mikos, and C.A. Garcia, "Morphological and Structural Properties of a Human RPE Cell Line Cultured on Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 12, 1997.
 130. M.S. Widmer*, G.R.D. Evans, K. Brandt, T. Savel, C.W. Patrick, Jr., and A.G. Mikos, "Porous Biodegradable Polymer Scaffolds for Nerve Regeneration," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
 131. S.J. Peter, J.A. Nolley, D.B. Kim, M.S. Widmer, P.S. Engel, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos*, "Curing Characteristics and Mechanical Properties of a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
 132. R.L. Cleek, R.J. Bjercke, A.A. Rege, S.G. Eskin, and A.G. Mikos*, "Biodegradable Polymeric Carriers for a bFGF Antibody for Cardiovascular Application," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 18, 1997.
 133. L. Lu*, C.A. Garcia, and A.G. Mikos, "Retinal Pigment Epithelium Tissue Engineering," 11th World Congress of the International Society for Artificial Organs, Providence, Rhode Island, July 1, 1997.
 134. A.G. Mikos*, "Polymeric Delivery Systems for Antisense Oligonucleotides," The Whitaker Foundation Biomedical Engineering Research Conference, Snowbird, Utah, July 12, 1997.
 135. A.G. Mikos*, S.L. Riley, R.C. Thomson, G.M. Crane, A. Gurlek, M.J. Miller, A.W. Yasko, and M.J. Yaszemski, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.
 136. G.M. Crane, M. Smith, A. Gurlek, A.K.M. Khoo, M.J. Miller, and A.G. Mikos*, "Rat Cranial Defect Repair by Marrow Stromal Osteoblast Transplantation," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.
 137. K. Brandt, G.R.D. Evans*, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nabawi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Using Biodegradable PLGA Conduits," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 21, 1997.

138. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos*, "Polymer Concepts Regarding Tissue Engineering," Portland Bone Symposium, Portland, Oregon, August 8, 1997.
139. A.G. Mikos*, "Biodegradable Polymers for Tissue Engineering," Medical Textiles Conference, Clemson University, Clemson, South Carolina, September 9, 1997.
140. E. Yuksel*, R. Cleek, J. Jensen, A. Weinfeld, A.G. Mikos, S. Shenaq, and M. Spira, "Delivery of Insulin, IGF-1, BFGF and VEGF in PLGA/PEG Microparticles to Augment Adiposofascial Flaps," Annual BMES Fall Meeting, San Diego, California, October 3, 1997.
141. L.J. Suggs*, R.S. Krishnan, S.J. Peter, and A.G. Mikos, "*In Vitro* Degradation of a Crosslinked Poly(Ethylene Glycol) Copolyester," Annual BMES Fall Meeting, San Diego, California, October 3, 1997.
142. M.J. Miller*, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gurlek, and A.G. Mikos, "Vascularized Tissue Scaffold Apparatus for Guided Tissue Growth," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
143. G.R.D. Evans*, K. Brandt, M. Widmer, T. Savel, A. Gurlek, R. Lohman, A. Nawabi, J. Williams, C. Patrick, and A.G. Mikos, "Tissue Engineered Nerve Conduits: Their Use in Peripheral Nerve Surgery," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
144. S.J. Peter*, D.J. Kim, and A.G. Mikos, "Three-Dimensional Bone Formation in Injectable, Biodegradable Polymer Scaffolds," Annual BMES Fall Meeting, San Diego, California, October 4, 1997.
145. A.G. Mikos*, "*In Situ* Polymerizable Biodegradable Scaffolds for Tissue Engineering," 21st Annual Symposium of Macromolecular Science and Engineering Center, The University of Michigan, Ann Arbor, Michigan, October 23, 1997.
146. R.G. Payne*, S.A. Sivaram, J.E. Babensee, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Marrow Stromal Osteoblast Encapsulation and Seeding onto a Crosslinking Biodegradable Polymer," Annual AIChE Meeting, Los Angeles, California, November 17, 1997.
147. E. Yuksel*, R. Cleek, A.B. Weinfeld, J. Waugh, J. Jensen, A.G. Mikos, S. Shenaq, and M. Spira, "Effects of Lipogenic Factors on Survival Rates of Fat Grafts," Annual AIChE Meeting, Los Angeles, California, November 18, 1997.
148. E. Yuksel*, B. Ray, M. Widmer, A.B. Weinfeld, J. Waugh, J. Jensen, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Prefabrication of Breast Utilizing Biodegradable PLGA Polymers: Angiogenic and Lipogenic Factors," Annual AIChE Meeting, Los Angeles, California, November 18, 1997.
149. R.C. Thomson, M.J. Yaszemski*, J.M. Powers, and A.G. Mikos, "Hydroxyapatite Fiber Reinforced Poly(α -Hydroxy Ester) Foams for Bone Regeneration," Annual AIChE Meeting, Los Angeles, California, November 19, 1997.
150. D.J. Kim*, S.J. Peter, A.W. Yasko, M.J. Miller, M.J. Yaszemski, and A.G. Mikos, "TGF- β Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," Annual AIChE Meeting, Los Angeles, California, November 19, 1997.
151. E. Yuksel*, M. Widmer, A.B. Weinfeld, M. Kattash, J. Waugh, J. Jensen, A.G. Mikos, and S. Shenaq, "Generation of Shaped Cartilage Using Perichondrial and Periosteal Flaps Activated by Growth Factor-Incorporated Biodegradable Scaffolds," Annual AIChE Meeting, Los Angeles, California, November 19, 1997.
152. A.G. Mikos*, "Materials and Scaffolds for Building Three Dimensional Tissues *In Vitro*," Workshop on Tissue Based Biosensors, Defense Advanced Research Projects Agency, George Washington University Campus, Ashburn, Virginia, December 10, 1997.
153. A.G. Mikos*, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Bionic Design Workshop: Reconstruction of Biological Functions and Structures, National Institute for Advanced Interdisciplinary Research, Tsukuba, Japan, January 20, 1998.
154. G. Liu*, S.G. Eskin, and A.G. Mikos, "Inhibitory Effects of β 3 Integrin Antibody on the Migration of Vascular Adventitial Fibroblasts Induced by Basic Fibroblast Growth Factor," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
155. E. Yuksel*, M. Widmer, R. Cleek, A. Weinfeld, M. Kattash, A.G. Mikos, S. Shenaq, and M. Spira, "Vascularized Perichondrial Flaps for *In Vivo* Tissue Engineering in Auricular Reconstruction: Two Rabbit Models," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
156. A. Weinfeld*, E. Yuksel, S. Wamsley, J. Jensen, B. Boutros, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Improvement of Free Fat Graft Survival: *In Vivo* Long-Term Delivery of IGF and Insulin

- Using PLGA/PEG Microspheres," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
157. L.J. Suggs*, C.A. Garcia, and A.G. Mikos, "An Injectable, Biodegradable PEG Copolyester as a Carrier for Endothelial Cells," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
 158. E. Yuksel*, A. Jedrysiak, A. Weinfeld, A.G. Mikos, M. Spira, and S. Shenaq, "A Novel Fascio-Cutaneous Island Flap Model in the Rat for the Quantitative Analysis of Neo-Angiogenesis," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
 159. S.J. Peter*, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
 160. E. Yuksel*, R. Ray, S. Wamsley, A. Weinfeld, J. Waugh, M. Widmer, R. Cleek, A.G. Mikos, S. Shenaq, and M. Spira, "Soft Tissue Engineering *In Vivo* with PLGA Scaffolds and PLGA/PEG Microsphere Long Term Delivery of Lipogenic Factors," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 8, 1998.
 161. E. Yuksel*, A.B. Weinfeld, J. Waugh, R. Cleek, A.G. Mikos, M. Spira, and S. Shenaq, "*In Vivo* Engineering of Vascularized Fat Flaps: Long-Term Delivery of Angiogenic Factors for Axially Neo-Vascularized Tissues," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 8, 1998.
 162. G.R.D. Evans*, K. Brandt, M.S. Widmer, R.K. Meszlenyi, J. Hodges, P.K. Gupta, J. Williams, A. Gürlek, R. Lohman, C.W. Patrick, and A.G. Mikos, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds for Peripheral Nerve Regeneration," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
 163. M.J. Miller*, A. Khoo, R.C. Thomson, J.C. Lemon, A. Gürlek, and A.G. Mikos, "*In Vivo* Fabrication of Vascularized Tissue Scaffolds," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
 164. C.R. Liang*, S.J. Peter, D.J. Kim, M.S. Widmer, and A.G. Mikos, "Osteoblastic Phenotype of Marrow Stromal Cells Cultured in the Presence of Dexamethasone," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
 165. G. Liu*, S.G. Eskin, and A.G. Mikos, "Basic Fibroblast Growth Factor-Stimulated Adventitial Fibroblast Migration Due to $\beta 3$ Integrin Regulation," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 2, 1998.
 166. W.T. Godbey*, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," 16th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, April 3, 1998.
 167. S.J. Peter*, P. Kim, A.W. Yasko, and A.G. Mikos, "Modulation of Handling Characteristics and Mechanical Properties of an *In Situ* Polymerizable Orthopaedic Biomaterial," MRS Spring Meeting, San Francisco, California, April 14, 1998.
 168. G. Liu*, S.G. Eskin, and A.G. Mikos, "Effects of Growth Factors on the Migration and Proliferation of Vascular Adventitial Fibroblasts," Experimental Biology 98, San Francisco, California, April 19, 1998.
 169. L.J. Suggs* and A.G. Mikos, "*In Vitro* Thrombogenicity of an Injectable, Biodegradable PEG Copolyester," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 23, 1998.
 170. M.S. Widmer, P.K. Gupta, L. Lu*, G.R.D. Evans, K. Brandt, T. Savel, A. Gurlek, C.W. Patrick, Jr., and A.G. Mikos, "Manufacture and Characterization of Porous Biodegradable Polymer Conduits for Peripheral Nerve Regeneration," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 23, 1998.
 171. S.J. Peter*, S.T. Miller, G. Zhu, A.W. Yasko, and A.G. Mikos, "*In Vivo* Degradation of a Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Injectable Composite Scaffold," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 24, 1998.
 172. G.R.D. Evans, K. Brandt, M.S. Widmer, J. Hodges, P.K. Gupta, J. Williams, A. Gürlek, R. Lohman, C.W. Patrick, and A.G. Mikos*, "Poly(L-Lactic Acid) (PLLA) Biodegradable Nerve Scaffolds: Their Utilization in Peripheral Nerve Surgery," 24th Annual Meeting of the Society For Biomaterials, San Diego, California, April 24, 1998.

173. L. Lu*, R. Kapur, C.A. Garcia, and A.G. Mikos, "Morphological Study of a Human RPE Cell Line Cultured on Patterned Biodegradable Polymer Substrates," Annual ARVO (Association for Research in Vision and Ophthalmology) Meeting, Fort Lauderdale, Florida, May 10, 1998.
174. M.J. Yaszemski*, D. Kim, S.J. Peter, A.W. Yasko, M.J. Miller, and A.G. Mikos, "TGF- β Induced Osteoblastic Behavior on a Poly(Propylene Fumarate) Based Orthopaedic Biomaterial," Annual Meeting of the American Orthopaedic Association, Asheville, North Carolina, June 3, 1998.
175. A.G. Mikos*, "Biodegradable Polymers for Tissue Engineering," 3rd International Business Communications Industry Symposium on Advancements in Tissue Engineering, Boston, Massachusetts, June 9, 1998.
176. A. Göpferich*, S.J. Peter, C. Vergani, F.V. Burkensroda, and A.G. Mikos, "Biodegradable Block-Copolymers as Drug and Cell Carriers," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998.
177. W.T. Godbey*, K.K. Wu, and A.G. Mikos, "Size Matters: Molecular Weight Affects the Efficiency of Poly(Ethylenimine) as a Gene Delivery Vehicle," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 24, 1998.
178. L. Lu*, C.A. Garcia, and A.G. Mikos, "Tissue Engineering of Retinal Pigment Epithelium Using Thin Poly(DL-Lactic-co-Glycolic Acid) Films," Annual BMES Fall Meeting, Cleveland, Ohio, October 12, 1998.
179. S.J. Peter, C.R. Liang, D.J. Kim, M.S. Widmer, and A.G. Mikos*, "Engineering the Osteoblastic Phenotype of Marrow-Derived Cells Using Cell Culture Supplements," Annual BMES Fall Meeting, Cleveland, Ohio, October 12, 1998.
180. E. Behravesch, P.S. Engel, A.W. Yasko, and A.G. Mikos*, "Synthetic Biodegradable Polymers for Orthopaedic Applications," Association of Bone and Joint Surgeons Orthopaedic Tissue Engineering Workshop, Tampa, Florida, November 13, 1998.
181. G. Liu*, S.G. Eskin, and A.G. Mikos, "Basic FGF Directed Migration of Vascular Adventitial Fibroblasts Via Integrin Regulation," Annual AIChE Meeting, Miami Beach, Florida, November 16, 1998.
182. J.E. Babensee*, L.V. McIntire, A.G. Mikos, and C.W. Smith, "Leukocyte Response to Biomaterial Implantation - Role of Complement Using Mouse Models," Annual AIChE Meeting, Miami Beach, Florida, November 17, 1998.
183. L. Lu*, C.A. Garcia, and A.G. Mikos, "In Vitro Degradation of Thin Poly(DL-Lactic-co-Glycolic Acid) Films," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
184. L. Lu*, R. Bizios, C.A. Garcia, A.G. Mikos, and L.C. Kam, "Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
185. A.S. Goldstein*, V. Liu, and A.G. Mikos, "Enhanced Growth of Osteoblastic Cells in Porous Scaffolds by Forced Convection," Annual AIChE Meeting, Miami Beach, Florida, November 18, 1998.
186. M.C. Wake, P.D. Gerecht, L. Lu, and A.G. Mikos*, "Biodegradable Particulate Polymer Effects on Marrow Stromal Osteoblasts *In Vitro*," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
187. M.B. Schulz*, A. Göpferich, A.S. Goldstein, and A.G. Mikos, "PEG-PLA Diblock Copolymers for Tissue Engineering of Bone," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
188. S. Katz, G.R.D. Evans, K. Brandt, P. Chauvin, L. Otto, R. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C. Patrick*, "Bioactive, Poly(L-Lactic Acid) Conduits for Peripheral Nerve Regeneration," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
189. G.N. Stamatias*, L. Lu, and A.G. Mikos, "Transforming Growth Factor- β 1 (TGF- β 1) Release Studies from Biodegradable Poly(Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) (PLGA/PEG) Microparticles," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
190. A.S. Goldstein*, G. Zhu, and A.G. Mikos, "Enhancement of Cellularity in Biodegradable Polymer Foams *In Vitro*," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
191. S.-L. He* and A.G. Mikos, "Injectable, *In Situ* Crosslinkable Biodegradable Orthopaedic Scaffolds Based on Poly(Propylene Fumarate) and Degradable Crosslinking Agents," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.
192. R.G. Payne*, S.A. Sivaram, J.E. Babensee, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres," 2nd Bi-Annual TES Meeting, Orlando, Florida, December 4, 1998.

193. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos*, "New Strategies for Bone Tissue Engineering," 11th International Workshop on Calcified Tissues, Eilat, Israel, February 11, 1999.
194. G.R.D. Evans*, K. Brandt, S. Katz, P. Chauvin, L. Otto, M. Bogle, R.K. Meszlenyi, B. Wang, T. King, A.G. Mikos, and C.W. Patrick, "The Utilization of Schwann Cells in Poly(L-Lactic Acid) Conduits for Nerve Regeneration," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 1999.
195. W.T. Godbey*, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 1999.
196. C.G. Ambrose*, G.R. Gogola, T. Clyburn, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System for Osteomyelitis," 17th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 1999.
197. L. Lu, S.J. Peter, G.N. Stamatias, and A.G. Mikos*, "Polymeric Delivery Vehicles for Bone Growth Factors," National ACS Meeting, Anaheim, California, March 21, 1999.
198. L.J. Suggs, M.J. Yaszemski, and A.G. Mikos*, "Development of Poly(Propylene Fumarate-co-Ethylene Glycol): An Injectable, Biodegradable Cardiovascular Implant," National ACS Meeting, Anaheim, California, March 22, 1999.
199. K.J.L. Burg*, A.G. Mikos, R.J. Beiler, C.R. Culberson, K.G. Greene, A.B. Loebsack, W.D. Roland, S. Wyatt, C.R. Halberstadt, W.D. Holder, Jr., and T.C. Burg, "Particulate Selection and Importance to Cell Adhesion in Solvent-Cast, Particulate-Leached Polymeric Constructs," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
200. S.-L. He*, M.J. Yaszemski, A.W. Yasko, and A.G. Mikos, "Development of a Biodegradable Bone Cement Based on Poly(Propylene Fumarate) and a Macromer," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
201. J.E. Babensee*, L.V. McIntire, A.G. Mikos, and C.W. Smith, "The Role of Complement in the Leukocyte Response to Biomaterial Implantation," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
202. L. Lu*, G.N. Stamatias, and A.G. Mikos, "Delivery of Transforming Growth Factor- β 1 from Poly(DL-Lactic-co-Glycolic Acid)/Poly(Ethylene Glycol) Microparticles," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
203. L.J. Suggs*, M.S. Shive, C.A. Garcia, J.M. Anderson, and A.G. Mikos, "*In Vitro* Cytotoxicity and *In Vivo* Biocompatibility of Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogels," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, May 2, 1999.
204. Q. Liu*, S.-L. He, R. Bahulekar, and A.G. Mikos, "Porous Anionic Hydrogels Based on sIPNs of Poly(2-Hydroxyethyl Methacrylate) and Poly(Acrylic Acid)," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, May 2, 1999.
205. A.G. Mikos*, "Bone Repair by Tissue Engineering," Congress on In Vitro Biology, New Orleans, Louisiana, June 7, 1999.
206. L. Lu*, L.C. Kam, M. Hasenbein, R. Bizios, and A.G. Mikos, "Human Retinal Pigment Epithelium Cell Culture on Patterned Surfaces," ASME Summer Bioengineering Conference, Big Sky, Montana, June 17, 1999.
207. J.B. Oldham*, B.D. Porter, T.-S. Tan, H. Brisby, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Influence of Changes in Experimental Parameters on Size of PLGA Microspheres," ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
208. J.B. Oldham*, B.D. Porter, T.E. Hefferan, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Biologic Activity of rhBMP-2 Following Release from PLGA Microspheres," ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
209. B.D. Porter*, J.B. Oldham, R.G. Payne, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of a Biodegradable Bone Regeneration Scaffold," ASME Summer Bioengineering Conference, Big Sky, Montana, June 20, 1999.
210. W.T. Godbey*, K.K. Wu, G.J. Hirasaki, and A.G. Mikos, "Improved Packing of Poly(Ethylenimine)/DNA Complexes Increases Transfection Efficiency," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, Massachusetts, June 22, 1999.

211. W.T. Godbey*, K.K. Wu, and A.G. Mikos, "Tracking the Intracellular Path of PEI/DNA Complexes for Gene Delivery," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, Massachusetts, June 23, 1999.
212. A.G. Mikos*, "Polymers as Drug Delivery Vehicles for Tissue Growth," Gordon Research Conference on Tissue Engineering, Biomaterials, and Biocompatibility, Plymouth, New Hampshire, July 19, 1999.
213. W.T. Godbey, K.K. Wu, and A.G. Mikos*, "Synthetic Polymers for Non-Viral Gene Delivery," 4th Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea, September 13, 1999.
214. S.J. Peter, M.J. Miller, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos*, "Polymer Concepts in Tissue Engineering," Academy of Dental Materials Annual Meeting, Tempe, Arizona, October 28, 1999.
215. E. Behravesh* and A.G. Mikos, "Adhesion and Differentiation of Marrow Stromal Osteoblasts on Synthetic Biodegradable Hydrogels," Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
216. R. Bizios, L. Lu*, A.G. Mikos, K. Nyalakonda, and A. Göpferich, "Novel Micropatterned Surfaces Fabricated from Synthetic Biodegradable Polymers for Retinal Pigment Epithelium Cell Culture," Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
217. W.T. Godbey*, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine) Affords Two Types of Protection Against DNA Degradation," Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
218. M.A. Barry, J.S. Blum*, and A.G. Mikos, "Gene Therapy for Bone Tissue Engineering," Annual AIChE Meeting, Dallas, Texas, November 3, 1999.
219. A.G. Mikos and A.K. Shung*, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Use in Cardiovascular Applications," Annual AIChE Meeting, Dallas, Texas, November 5, 1999.
220. A.I. Caplan, A.S. Goldstein*, M. Gustin, and A.G. Mikos, "Osteoblastic Cell Growth and Function in PLGA/Ceramic Foams," Annual AIChE Meeting, Dallas, Texas, November 5, 1999.
221. A.S. Goldstein*, T.M. Juarez, C.D. Helmke, M.C. Gustin, and A.G. Mikos, "Effect of Convection on Osteoblastic Cell Proliferation and Function in Porous Scaffolds," Second BioValley Tissue Engineering Symposium, Freiburg, Germany, November 26, 1999.
222. J.S. Temenoff and A.G. Mikos*, "Bone Tissue Engineering Using Synthetic Biodegradable Polymer Scaffolds," Bone Engineering Workshop, Toronto, Canada, December 2, 1999.
223. W.T. Godbey and A.G. Mikos*, "Recent Progress in Poly(Ethylenimine)-Mediated Gene Delivery," 2000 Research Initiatives Conference in Vascular Disease on the Biology of Vascular Interventions-Minimally Invasive Approaches to Vascular Disease, Bethesda, Maryland, February 18, 2000.
224. E. Behravesh*, T.M. Juarez, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion on Poly(Propylene Fumarate) Based Hydrogels," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
225. S. Jo* and A.G. Mikos, "Modification of Poly(Ethylene Glycol)-Tethered Poly(Propylene-co-Fumarate) with RGD Peptide," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
226. A.K. Shung* and A.G. Mikos, "Cell Adhesion on Biodegradable Copolymer Hydrogels for Cardiovascular Applications," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2000.
227. M.D. Timmer*, S. He, A.G. Mikos, and C.G. Ambrose, "Investigation of a Poly(Propylene Fumarate)-Based Polymer for Bioresorbable Interbody Fusion Cage," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
228. J.S. Blum*, M.A. Barry, and A.G. Mikos, "Gene Therapy in Bone Tissue Engineering," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
229. W.T. Godbey*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Non-Viral Gene Delivery," 18th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 11, 2000.
230. G. Gogola*, C. Ambrose, A. Peng, and A.G. Mikos, "PLGA/PEG Microspheres as an Antibiotic Delivery System," Annual Meeting of Orthopaedic Research Society, Orlando, Florida, March 12, 2000.
231. A.G. Mikos*, "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds" (Alessandro Codivilla Lecture), Association for the Study and Application of the Methods of Ilizarov Annual Scientific Meeting, Orlando, Florida, March 13, 2000.

232. J.S. Temenoff and A.G. Mikos*, "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Annual Meeting of Orthopaedic Research Society and American Academy of Orthopaedic Surgeons, Orlando, Florida, March 15, 2000.
233. W.T. Godbey and A.G. Mikos*, "Poly(Ethylenimine) as a Gene Delivery Vehicle and Its Potential for Tissue Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 13, 2000.
234. A.G. Mikos*, "Engineering of Bone," Croucher Advanced Study Institute on Engineering of Musculoskeletal Tissues, Kowloon, Hong Kong, April 16, 2000.
235. A.G. Mikos*, "Biodegradable Polymer Scaffolds for Musculoskeletal Tissue Engineering," Croucher Advanced Study Institute on Engineering of Musculoskeletal Tissues, Kowloon, Hong Kong, April 17, 2000.
236. J.S. Temenoff and A.G. Mikos*, "Biocompatibility Issues with Biodegradable Polymers," 6th World Biomaterials Congress, Kamuela, Hawaii, May 16, 2000.
237. S. He*, M.J. Yaszemski, P.S. Engel, and A.G. Mikos, "Injectable, *In Situ* Crosslinkable, Biodegradable Poly(Propylene Fumarate) Networks for Orthopaedic Tissue Engineering," 6th World Biomaterials Congress, Kamuela, Hawaii, May 18, 2000.
238. W.T. Godbey*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Transfection with Poly(Ethylenimine) Is More Like Hitting Cells with a Bullet than a Sponge," 6th World Biomaterials Congress, Kamuela, Hawaii, May 18, 2000.
239. J.E. Babensee*, L.V. McIntire, A.G. Mikos, and J. Rodgers, "Exogenous Antigen-Specific Immune Response Upon Biomaterial Contact," 6th World Biomaterials Congress, Kamuela, Hawaii, May 19, 2000.
240. S. Jo*, A.K. Shung, H. Shin, and A.G. Mikos, "Synthesis and Characterization of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
241. S. Jo* and A.G. Mikos, "Modification of a Novel Poly(Ethylene Glycol) Macromer Based on Fumaric Acid with GRGD Peptide," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
242. J. Tessmar*, A.G. Mikos, and A. Göpferich, "A New Biodegradable Polymer for the Modification of Surfaces: H₂N-Poly(Ethylene Glycol)-Poly(D,L-Lactic Acid)," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
243. R. Bahulekar*, Q. Liu, and A.G. Mikos, "Synthesis and Characterization of Hydrogels Containing Sugar-Methacrylate Monomer," 6th World Biomaterials Congress, Kamuela, Hawaii, May 20, 2000.
244. J.S. Blum*, E.A. Davis, R.H. Li, M.A. Barry, and A.G. Mikos, "A New *In Vitro* Assay for the Detection of rhBMP-2 Produced by Genetically Modified Cells," 3rd International Conference on Bone Morphogenetic Proteins, Lake Tahoe, California, June 9, 2000.
245. L. Lu, S.J. Peter, G.N. Stamatias, D.J. Kim, M.J. Miller, M.J. Yaszemski, and A.G. Mikos*, "Controlled Release of TGF- β 1 from Biodegradable Polymer Microparticles and Its Effects on Marrow Stromal Osteoblast Function," 3rd International Conference on Bone Morphogenetic Proteins, Lake Tahoe, California, June 10, 2000.
246. W.T. Godbey*, K.K. Wu, and A.G. Mikos, "Non-Viral Gene Delivery Affects Endothelial Cell Function and Viability," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000.
247. W.T. Godbey*, M.A. Barry, P. Saggau, K.K. Wu, and A.G. Mikos, "Poly(Ethylenimine)-Mediated Transfection: A New Paradigm for Gene Delivery," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000.
248. J. Tessmar*, A.G. Mikos, and A. Göpferich, "New Biodegradable Polymers for the Development of Biomimetic Biomaterials," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 12, 2000.
249. A.G. Mikos*, "Present and Future Status of Tissue/Organ Bioengineering: An Approach to the 21st Century Medicine," 16th Annual Meeting of Japan Society of Drug Delivery System, Akita, Japan, July 29, 2000.
250. W.T. Godbey and A.G. Mikos*, "Non-Viral Gene Delivery Vectors," International Symposium on Biomaterials and Drug Delivery Systems, Cheju Island, Korea, August 22, 2000.
251. J.S. Temenoff and A.G. Mikos*, "Injectable Biodegradable Polymers for Tissue Engineering," Surfaces in Biomaterials, Scottsdale, Arizona, August 31, 2000.

252. A.G. Mikos*, "Engineering Human Tissue: Challenges and Opportunities," 9th Research Council Meeting of Japan Society of Plastic and Reconstructive Surgery, Nagoya, Japan, October 5, 2000.
253. A.G. Mikos*, "Fabrication of Biodegradable Polymer Scaffolds for Tissue Engineering," 9th Research Council Meeting of Japan Society of Plastic and Reconstructive Surgery, Satellite Symposium on Regeneration Medicine, Nagoya, Japan, October 6, 2000.
254. A.G. Mikos*, "Biosmart Polymers," Council for the Advancement of Science Writing Annual Briefing, Houston, Texas, October 30, 2000.
255. J.P. Fisher*, T.A. Holland, P.S. Engel, and A.G. Mikos, "Preparation and Characterization of Photocrosslinked Poly(Propylene Fumarate) for Orthopaedic Applications," Annual AIChE Meeting, Los Angeles, California, November 13, 2000.
256. A.G. Mikos*, "Engineering Human Tissue," Annual AIChE Meeting, Los Angeles, California, November 14, 2000.
257. V.I. Sikavitsas, G.N. Bancroft, and A.G. Mikos*, "Bioreactor Design for Three-Dimensional Cell-Polymer Constructs in Bone Tissue Engineering," 5th International Symposium on Tissue Engineering for Therapeutic Use, Tsukuba, Japan, November 17, 2000.
258. V.I. Sikavitsas*, G.N. Bancroft, and A.G. Mikos, "Formation of Three Dimensional Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 27, 2000.
259. R.G. Payne*, A.W. Yasko, M.J. Yaszemski, and A.G. Mikos, "Temporary Encapsulation of Rat Marrow Osteoblasts in Gelatin Microspheres for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 27, 2000.
260. A.K. Shung* and A.G. Mikos, "Effects of Block Lengths and Initial Water Content on the Swelling and Degradative Characteristics of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
261. E.L. Hedberg* and A.G. Mikos, "Controlled Release of Bone Growth Factors from Injectable, Biodegradable Polymer Scaffolds for Bone Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
262. J.P. Fisher, T.A. Holland*, D. Dean, and A.G. Mikos, "Photocrosslinked Poly(Propylene Fumarate) Scaffolds for Orthopedic Applications," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
263. E. Behraves* and A.G. Mikos, "Fabrication of an Injectable Porous Synthetic Biodegradable Hydrogel for Dental Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 28, 2000.
264. H. Shin*, S. Jo, and A.G. Mikos, "Synthetic Biodegradable Polymer Networks Modulating Marrow Stromal Osteoblast Function," MRS Fall Meeting, Boston, Massachusetts, November 29, 2000.
265. J.S. Temenoff*, S. Jo, H.-S. Shin, K.A. Athanasiou, R.G. LeBaron, and A.G. Mikos, "Novel Injectable Poly(Ethylene Glycol) Fumarate Hydrogels for Cartilage Tissue Engineering," 3rd Bi-Annual TES Meeting, Orlando, Florida, December 1, 2000.
266. G.N. Bancroft*, V.I. Sikavitsas, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," 3rd Bi-Annual TES Meeting, Orlando, Florida, December 1, 2000.
267. J.P. Fisher*, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "The *In Vivo* Biocompatibility of Poly(Propylene Fumarate) Scaffolds," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
268. E.L. Hedberg* and A.G. Mikos, "Controlled Release of Osteoinductive Factors from Injectable, Biodegradable Polymeric Composites," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
269. J.S. Blum*, R.H. Li, A.G. Mikos, and M.A. Barry, "An Optimized Method for the Chemiluminescent Detection of Alkaline Phosphatase Levels during Osteodifferentiation by Bone Morphogenetic Protein 2," 19th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 9, 2001.
270. A.G. Mikos*, "Injectable Biodegradable Polymers for Orthopaedic Tissue Engineering," Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania, March 27, 2001.
271. A.G. Mikos*, "Engineering Bone Tissue," 2001 Human Genome Odyssey Conference: The Science, Business, Law and Ethics of Engineering Human Life, Akron, Ohio, April 6, 2001.

272. G.N. Bancroft, V.I. Sikavitsas*, and A.G. Mikos, "Three-Dimensional Culture of Cell-Polymer Constructs in Bioreactors for Bone Tissue Engineering," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 26, 2001.
273. M.S. Wolfe*, D. Dean, J.E. Chen, S. Han, C. Rimnac, S.A. Goldman, A.I. Caplan, L. Solchaga, and A.G. Mikos, "*In Vitro* Degradation of Poly(Propylene Fumarate)/ β -Tricalcium Phosphate Scaffolds," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 26, 2001.
274. J.S. Temenoff*, R.G. LeBaron, K.A. Athanasiou, and A.G. Mikos, "Novel Laminated PEG-Fumarate Hydrogels for Tissue Engineering of Articular Cartilage," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 27, 2001.
275. S. He*, J. Ulrich, R.G. Valenzuela, M. Zobitz, K.-N. An, B.L. Currier, A.G. Mikos, and M.J. Yaszemski, "Mechanical Properties of Biodegradable Poly(Propylene Fumarate)-Bone Fiber Composites During the Degradation Process," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 27, 2001.
276. M.D. Timmer*, S. He, C.G. Ambrose, and A.G. Mikos, "Mechanical Properties of Photo-Initiated, Biodegradable Polymer Networks for Prefabricated Orthopaedic Scaffolds," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 28, 2001.
277. A.G. Mikos*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering" (Clemson Award for Contributions to the Literature Lecture), 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 29, 2001.
278. J. Tessmar*, A.G. Mikos, and A. Göpferich, "Towards the Covalent Attachment of Insulin to Biodegradable Diblock Copolymers," 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, California, June 25, 2001.
279. A.G. Mikos*, S. Jo, H. Shin, and J.S. Temenoff, "Injectable Gels for Dental Tissue Engineering," 4th Annual Bioengineering Consortium Symposium on Regenerative Medicine: Growing Tissues and Organs, National Institutes of Health, Bethesda, Maryland, June 26, 2001.
280. K. Tanahashi and A.G. Mikos, "Cell Adhesion on Poly(Propylene Fumarate-co-Ethylene Glycol) Hydrogel," Annual BMES Fall Meeting, Durham, North Carolina, October 5, 2001.
281. J.P. Fisher, J.W.M. Vehof, D. Dean, J.A. Jansen, and A.G. Mikos, "An In Vivo Study of Poly(Propylene Fumarate) Scaffolds: Tissue Response and Bone Formation," Annual BMES Fall Meeting, Durham, North Carolina, October 5, 2001.
282. V.I. Sikavitsas* and A.G. Mikos, "Polymers as Vehicles for Releasing Bioactive Agents and Guiding Tissue Growth," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 23, 2001.
283. V.I. Sikavitsas* and A.G. Mikos, "Polymeric Constructs on Tissue Engineering: Ideal Properties and Characterization Techniques," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 24, 2001.
284. J.S. Temenoff, V.I. Sikavitsas*, and A.G. Mikos, "Novel Injectable Hydrogels for Cartilage Tissue Engineering," NATO Advanced Study Institute on Polymer Based Systems on Tissue Engineering, Replacement and Regeneration, Alvor, Portugal, October 24, 2001.
285. J.P. Fisher*, D. Dean, and A.G. Mikos, "Photocrosslinking of Diethyl Fumarate and Poly(Propylene Fumarate) for the Engineering of Bone Grafts," Annual AIChE Meeting, Reno, Nevada, November 5, 2001.
286. M.D. Timmer*, C.G. Ambrose, and A.G. Mikos, "Quantification of the Crosslinking Density of Poly(Propylene Fumarate)-Based Biodegradable Networks," Annual AIChE Meeting, Reno, Nevada, November 5, 2001.
287. H.L. Holtorf*, S. Jo, and A.G. Mikos, "Development of a Novel Biodegradable Cationic Polymer for Nonviral Gene Delivery," Annual AIChE Meeting, Reno, Nevada, November 8, 2001.
288. V.I. Sikavitsas*, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Culture of Bone Marrow Stromal Cells Seeded on Three-Dimensional Porous Scaffolds in a Flow Perfusion Bioreactor," Annual AIChE Meeting, Reno, Nevada, November 8, 2001.
289. A.G. Mikos*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Annual Conference on Regenerative Medicine: Rebuilding the Human Body, Washington, D.C., December 3, 2001.
290. H. Shin* and A.G. Mikos, "Biomimetic Biodegradable Hydrogels Modulating Marrow Stromal Osteoblast Adhesion," Annual Meeting of Orthopaedic Research Society, Dallas, Texas, February 10, 2002.

291. G.N. Bancroft*, V.I. Sikavitsas, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Three-Dimensional Culture of Marrow Stromal Osteoblasts on Titanium Fiber Mesh Scaffolds in a Flow Perfusion Bioreactor," Annual Meeting of Orthopaedic Research Society, Dallas, Texas, February 12, 2002.
292. A.G. Mikos*, E.L. Hedberg, F.K. Kasper, J.S. Temenoff, "Injectable, *In Situ* Crosslinkable, Biodegradable Polymers for Peptide and Gene Delivery," American Association of Pharmaceutical Scientists Workshop on Critical Issues in the Design and Applications of Polymeric Biomaterials in Drug Delivery, Arlington, Virginia, February 28, 2002.
293. A.G. Mikos*, "Engineering Human Tissues," Foundation for Research and Technology Hellas Conference, Metsovo, Greece, March 2, 2002.
294. A.G. Mikos*, "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Biomaterials - The Next Frontiers Conference: Biomedical, Bioelectronic, Biomineralization, Bioanalytical, University of Delaware, Newark, Delaware, March 12, 2002.
295. A.G. Mikos*, "Injectable Biomimetic Hydrogels for Tissue Engineering," Engineering Tissue Growth International Conference and Exposition, Pittsburgh, Pennsylvania, March 19, 2002.
296. A.G. Mikos and J.P. Fisher*, "Biomimetic Polymer Scaffolds for Bone Tissue Engineering," Annual Meeting of the American Association of Anatomists - Experimental Biology 2002, New Orleans, Louisiana, April 23, 2002.
297. J.P. Fisher* and A.G. Mikos, "Injectable Biodegradable Hydrogels for Drug Delivery and Tissue Engineering," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
298. E.S. Steinbis*, J.S. Temenoff, and A.G. Mikos, "Effect of Drying History on Swelling Properties of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Guided Tissue Growth in Dental Applications," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
299. E.L. Hedberg*, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of an Osteoinductive Peptide from Injectable, Biodegradable Polymeric Composite Scaffolds for Bone Tissue Engineering," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
300. A.K. Shung*, E. Behraves, S. Jo, and A.G. Mikos, "Characterization of an Injectable Poly(Propylene Fumarate-co-Ethylene Glycol) Block Copolymer Hydrogel Using a Water Soluble Crosslinking System," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
301. M.N. Cooke*, J.P. Fisher, C. Rimnac, D. Dean, and A.G. Mikos, "Control of 3D Biodegradable Scaffold Geometry," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 25, 2002.
302. J.W. Vehof*, J.P. Fisher, D. Dean, P.H. Spauwen, A.G. Mikos, and J.A. Jansen, "Bone Formation in Transforming Growth Factor- β 1-Coated Porous Poly(Propylene Fumarate) Scaffolds," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 26, 2002.
303. K. Tanahashi*, S. Jo, and A.G. Mikos, "Synthesis of Injectable, Biodegradable Hydrogels of Poly(Propylene Fumarate-co-Ethylene Glycol) Modified with Agmatine for Enhanced Cell Adhesion," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 26, 2002.
304. F.M. Wale*, C.N. Demers, A. Petit, J.S. Temenoff, V. Lim, J. Fisher, D. Zukor, O. Huk, A.G. Mikos, P. Roughley, and J. Antoniou, "Analysis of Poly(Propylene Fumarate-co-Ethylene Glycol) as a Scaffold for Use in Tissue Engineering of Intervertebral Disc: Retention of Collagen and Proteoglycan," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 27, 2002.
305. E. Behraves*, K. Zygourakis, and A.G. Mikos, "Marrow Stromal Osteoblast Adhesion and Migration on Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Hydrogels with a Covalently Linked GRGDS Peptide Sequence," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 27, 2002.
306. A.G. Mikos*, "Polymers and Cytokines to Augment Bone Production," Edward C. Hinds Symposium on Contemporary Oral and Maxillofacial Surgery, Houston, Texas, April 27, 2002.
307. A.G. Mikos*, "The Added Value of Synthetic Polymers in Tissue Engineering," Aegean Conference on Tissue Engineering Science, Myconos, Greece, May 21, 2002.
308. V.I. Sikavitsas, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos*, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," Aegean Conference on Tissue Engineering Science, Myconos, Greece, May 22, 2002.

309. L.A. Solchaga*, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, PLGA- and PLLA-Based Scaffolds: A Comparative Study," 4th International Cartilage Repair Society Symposium, Toronto, Canada, June 16, 2002.
310. A.G. Mikos*, E.L. Hedberg, S. Jo, F.K. Kasper, H. Shin, and J.S. Temenoff, "Injectable Biodegradable Hydrogels for Tissue Engineering," 29th International Symposium on Controlled Release of Bioactive Materials, Seoul, Korea, July 23, 2002.
311. A.G. Mikos*, "Bioreactor Technology for Bone Tissue Engineering," 3rd Smith & Nephew International Symposium on Translating Tissue Engineering into Products, Atlanta, Georgia, October 14, 2002.
312. A.G. Mikos*, "Controlled Release of Osteogenic Molecules from Polymeric Carriers," 4th International Conference on Bone Morphogenetic Proteins, Sacramento, California, October 19, 2002.
313. J.P. Fisher*, Z. Lalani, C.M. Bossano, E.M. Brey, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Evaluation of Bone Formation within Biodegradable Tissue Engineering Scaffolds," 4th International Conference on Bone Morphogenetic Proteins, Sacramento, California, October 19, 2002.
314. E.L. Hedberg*, J.S. Temenoff, A. Tang, R.S. Crowther, D.H. Carney, and A.G. Mikos, "Controlled Release of a Tissue Inducing Peptide from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Orthopaedic Tissue Engineering," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 23, 2002.
315. J.S. Temenoff*, H. Shin, P.S. Engel, and A.G. Mikos, "Cytotoxicity of Redox Radical Initiators for Encapsulation of Mesenchymal Stem Cells," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.
316. E. Behraves*, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, and A.G. Mikos, "In Vitro Degradation of In Situ Crosslinkable Poly(Propylene Fumarate-co-Ethylene Glycol)-Based Macroporous Hydrogels," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.
317. J.P. Fisher*, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Immunohistochemical Characterization of Guided Bone Formation by a Biodegradable Tissue Engineering Scaffold in a Healing Tooth Socket of a Rabbit Model," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 24, 2002.
318. V.I. Sikavitsas*, G.N. Bancroft, J. van den Dolder, T.L. Sheffield, J.A. Jansen, C.G. Ambrose, and A.G. Mikos, "Fluid Flow Increases Mineralized Matrix Deposition in Three-Dimensional Perfusion Culture of Marrow Stromal Osteoblasts in a Dose-Dependent Manner," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 26, 2002.
319. J.P. Fisher*, Z. Lalani, N. Demian, M.E.K. Wong, and A.G. Mikos, "Characterization of Bone Formation within a Biodegradable Tissue Engineering Scaffold Using Immunohistochemical Techniques," Annual AIChE Meeting, Indianapolis, Indiana, November 5, 2002.
320. E. Jabbari*, E. Behraves*, and A.G. Mikos, "Development of a Biodegradable Redox Initiated Oligo(PEG Fumarate)-Based Hydrogel as an *In Situ* Crosslinkable Cell Carrier," Annual AIChE Meeting, Indianapolis, Indiana, November 5, 2002.
321. E. Jabbari*, F.K. Kasper, and A.G. Mikos, "Controlled Release of Plasmid DNA from Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Microspheres," Annual AIChE Meeting, Indianapolis, Indiana, November 7, 2002.
322. V.I. Sikavitsas*, G.N. Bancroft, J.A. Jansen, and A.G. Mikos, "Effect of Shear Forces on the Osteogenic Differentiation of Marrow Stromal Cells," Annual AIChE Meeting, Indianapolis, Indiana, November 7, 2002.
323. A.G. Mikos and J.P. Fisher*, "Injectable Biodegradable Hydrogels for Tissue Engineering," Polymers in Medicine and Biology: 2002, Rohnert Park, California, November 16, 2002.
324. A.G. Mikos*, "Materials and Scaffolds for Tissue Engineering," Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands, December 17, 2002.
325. J.S. Blum*, A.G. Mikos, and M.A. Barry, "Influence of Osteogenic Supplements on Gene Transfer and Expression in Rat Marrow Stromal Cells by Adenoviral, Retroviral, and Cationic Lipid Vectors for both Reporter and Therapeutic Proteins," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 2, 2003.
326. L.A. Solchaga*, J. Gao, J.S. Temenoff, A.G. Mikos, V.M. Goldberg, and A.I. Caplan, "Repair of Osteochondral Defects with Hyaluronan-, and Polyester-Based Scaffolds," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 3, 2003.

327. A.G. Mikos*, "The Use of Biodegradable Materials in Bone Tissue Engineering," Annual Meeting of Orthopaedic Research Society, New Orleans, Louisiana, February 4, 2003.
328. J.S. Temenoff*, H. Shin, and A.G. Mikos "Cytotoxicity of Components of Oligo(Poly(Ethylene Glycol) Fumarate)-Based Hydrogels for Encapsulation of Marrow Stromal Cells," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 1, 2003.
329. H. Shin*, P.Q. Ruhé, J.A. Jansen, and A.G. Mikos, "*In Vivo* Bone and Soft Tissue Response to Biodegradable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
330. M.E. Gomes*, V.I. Sikavitsas, E. Behraves, R.L. Reis, and A.G. Mikos, "Effect of Flow Perfusion on Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured on Starch Based Three-Dimensional Scaffolds," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
331. J. van den Dolder, V.I. Sikavitsas, G.N. Bancroft, P.H.M. Spauwen, J.A. Jansen*, and A.G. Mikos, "Cell/Titanium Bone Tissue Engineered Constructs Using a Rat Cranial Size Defect Model," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
332. T.M.G. Chu*, C.L. Flanagan, S.J. Hollister, S.E. Feinberg, J.P. Fisher, and A.G. Mikos, "The Mechanical and *In Vivo* Performance of 3-D Poly(Propylene Fumarate)/Tricalcium Phosphate Scaffolds," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 2, 2003.
333. V.I. Sikavitsas*, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Fluid Shear Forces Mediate the Osteogenic Differentiation of Marrow Stromal Osteoblasts in a Three-Dimensional Perfusion Culture," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, May 3, 2003.
334. T.A. Holland*, Y. Tabata, and A.G. Mikos, "Controlled Release of TGF- β 1 from Gelatin Microparticles Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 20, 2003.
335. E.L. Hedberg*, H.C. Kroese-Deutman, J.J. Lemoine, C.K. Shih, R.S. Crowther, D.H. Carney, M.A.K. Liebschner, A.G. Mikos, and J.A. Jansen, "*In Vivo* Osteogenesis in Response to the Controlled Release of TP508 from Biodegradable Polymeric Scaffolds," 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003.
336. R.A. Horch, M.D. Timmer, A.R. Barron, and A.G. Mikos*, "Poly(Propylene Fumarate)-Based Nanocomposites for Bone Tissue Engineering," 2003 Nano Summit, Houston, Texas, July 31, 2003.
337. A.G. Mikos*, "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," 5th International Bone Fluid Flow Workshop, Cleveland, Ohio, September 18, 2003.
338. E.L. Hedberg*, C. Shih, L.A. Solchaga, A.I. Caplan, and A.G. Mikos, "Controlled Release of Hyaluronic Acid Oligomers from Biodegradable Polymeric Microparticles," Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
339. B. Bucklen*, M.A. Wettergreen, A.G. Mikos, and M.A. Liebschner, "Scaffold Design Using Model-Based Mechanotransduction Principles," Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
340. V.I. Sikavitsas*, G.N. Bancroft, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "Bone Tissue Engineering by Cell and *In Vitro* Generated Extracellular Matrix Transplantation," Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
341. H.L. Holtorf*, N. Datta, J.A. Jansen, and A.G. Mikos, "Effect of Scaffold Pore Size on Marrow Stromal Cell Differentiation in a Flow Perfusion Bioreactor," Annual BMES Fall Meeting, Nashville, Tennessee, October 2, 2003.
342. J.S. Temenoff*, H. Park, E. Jabbari, and A.G. Mikos, "Bone Formation from Marrow Stromal Cells Encapsulated in Oligo(PEG Fumarate) Hydrogels," Annual BMES Fall Meeting, Nashville, Tennessee, October 3, 2003.
343. E. Behraves, V.I. Sikavitsas*, and A.G. Mikos, "Quantification of Ligand Surface Concentration of Bulk Modified Biomimetic Hydrogels," BioInterface 2003, Savannah, Georgia, October 24, 2003.
344. H. Shin*, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Attachment, Proliferation, and Migration of Marrow Stromal Osteoblasts Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," BioInterface 2003, Savannah, Georgia, October 24, 2003.
345. A.G. Mikos*, "The International Perspective," Symposium Tissue Engineering, Netherlands Technology Foundation, Ede, The Netherlands, November 7, 2003.

346. V.I. Sikavitsas*, G.N. Bancroft, J. van den Dolder, J.A. Jansen, and A.G. Mikos, "Bone Regeneration by Marrow Stromal Osteoblast Transplantation," Annual AIChE Meeting, San Francisco, California, November 17, 2003.
347. T.A. Holland, J.K. Tessmar, Y. Tabata, and A.G. Mikos*, "Sustained Release of Transforming Growth Factor- β 1 from Novel Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels Encapsulating Gelatin Microparticles in Conditions that Model the Cartilage Wound Healing Environment," Annual AIChE Meeting, San Francisco, California, November 18, 2003.
348. G. Cheng*, H. Shin, A.G. Mikos, and K. Zygourakis, "3-Dimensional Transmigration of Human Dermal Fibroblasts from Collagen Gels to Biomimetic Hydrogels Modified with Peptide Sequences," Annual AIChE Meeting, San Francisco, California, November 18, 2003.
349. A.G. Mikos*, "Synthetic Polymers for Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 19, 2003.
350. R.A. Horch*, M.D. Timmer, A.R. Barron, and A.G. Mikos, "Reinforcement of Poly(Propylene Fumarate)-Based Networks with Surface Modified Alumoxane Nanoparticles for Bone Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 20, 2003.
351. J.P. Fisher*, A.G. Mikos, and A.H. Reddi, "Hydrogel Scaffolds for Tissue Engineering of Articular Cartilage," Annual AIChE Meeting, San Francisco, California, November 20, 2003.
352. A.G. Mikos*, "Recent Progress in Tissue Engineering Using Biodegradable Polymers," 1st International Conference on Epithelial Technologies and Tissue Engineering, Singapore, December 4, 2003.
353. P.Q. Ruhé*, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, J.A. Jansen, and A.G. Mikos, "rhBMP-2 Release from Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," 6th Annual International Conference and Exposition of Tissue Engineering Society International, Orlando, Florida, December 12, 2003.
354. M.S. Wolfe*, D. Dean, A. Totonchi, J. Chen, Y. Ahmad, C. Rimnac, and A.G. Mikos, "Osseointegration of Porous Poly(Propylene Fumarate) Scaffolds Treated with Transforming Growth Factor- β 2 in a Critical Size Rabbit Skull Defect," 6th Annual International Conference and Exposition of Tissue Engineering Society International, Orlando, Florida, December 12, 2003.
355. G. Cheng*, H. Shin, A.G. Mikos, and K. Zygourakis, "Expansion of Marrow Stromal Osteoblast Megacolonyes on Biomimetic Hydrogels: Interpreting and Evaluating the Assay Data," 21st Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 2004.
356. X. Shi*, J. Hudson, R.A. Horch, J.M. Tour, R. Krishnamoorti, and A.G. Mikos, "Carbon Nanotube/Poly(Propylene Fumarate) Composites for Bone Tissue Engineering," 21st Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 12, 2004.
357. H. Shin*, K. Zygourakis, M.C. Farach-Carson, M.J. Yaszemski, and A.G. Mikos, "Modulation of Differentiation and Mineralization of Marrow Stromal Cells Cultured on Biomimetic Hydrogels Modified with an Osteopontin-Derived Peptide," Annual Meeting of Orthopaedic Research Society, San Francisco, California, March 7, 2004.
358. M.A. Wettergreen*, J.E. Pan, J.J. Lemoine, A.G. Mikos, and M.A.K. Liebschner, "Modification of Apparent Scaffold Properties Through Porogen Surface to Volume Ratio Manipulation," Annual Meeting of Orthopaedic Research Society, San Francisco, California, March 7, 2004.
359. P.Q. Ruhé*, E.L. Hedberg, N.T. Padron, P.H.M. Spauwen, A.G. Mikos, and J.A. Jansen, "Biocompatibility and Degradation of Injectable Poly(DL-Lactic-co-Glycolic Acid)/Calcium Phosphate Cement Composites," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
360. A.G. Mikos*, "Scaffold-Based Tissue Engineering Approaches," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
361. H. Shin, G.C. Bowden*, and A.G. Mikos, "Osteogenic Differentiation of Marrow Stromal Cells Cultured on Biomimetic Hydrogels," Annual Meeting of the International Association for Dental Research, Honolulu, Hawaii, March 11, 2004.
362. A.G. Mikos*, "Synthetic Polymers for Tissue Engineering," National ACS Meeting, Anaheim, California, March 28, 2004.
363. A.G. Mikos*, "Scaffold-Based Tissue Engineering," United Kingdom/Texas Symposium on Tissue Engineering and Regenerative Medicine, Imperial College, London, England, March 30, 2004.

364. T.A. Holland, Z.S. Patel, Y. Tabata, and A.G. Mikos*, "Growth Factor Delivery from Injectable Hydrogel Scaffolds for Tissue Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 7, 2004.
365. J.A. Jansen*, J.W.M. Vehof, P.Q. Ruhé, H. Kroeze-Deutman, J.P. Fisher, E.L. Hedberg, and A.G. Mikos, "Growth Factor Loaded Scaffolds for Bone Engineering," European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherlands, April 7, 2004.
366. A.G. Mikos*, "Biomaterials for Tissue Engineering," 1st Biennial Symposium on Tissue Engineering and Regeneration, University of Michigan, Ann Arbor, Michigan, May 12, 2004.
367. J.P. Fisher*, S. Jo, A.G. Mikos, and A.H. Reddi, "Thermoreversible Hydrogel Scaffolds for Articular Cartilage Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
368. M.E. Gomes*, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Expression of Bone Growth Factors by MSCs Cultured on Starch/Poly(ϵ -caprolactone) Scaffolds Using a Flow Perfusion Bioreactor," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
369. J.S. Temenoff*, H. Park, E. Jabbari, T.L. Sheffield, R.G. LeBaron, C.G. Ambrose, and A.G. Mikos, "Swelling of Fumarate-Based Hydrogels Affects Osteogenic Differentiation of Embedded Marrow Stromal Cells," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
370. N. Datta*, H.L. Holtorf, J.A. Jansen, and A.G. Mikos, "*In Vitro* Synthesis of Osteoinductive Extracellular Matrix for Bone Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
371. J.K. Tessmar*, C.R. Rieger, M.A. Burrell, and A.G. Mikos, "Synthesis of Unsaturated Fumarate-Based Macromers and their Crosslinked Hydrogels," 7th World Biomaterials Congress, Sydney, Australia, May 18, 2004.
372. E.L. Hedberg*, C.K. Shih, M.D. Timmer, J.J. Lemoine, M.A.K. Liebschner, J.A. Jansen, and A.G. Mikos, "*In Vitro* Degradation of Poly(Propylene Fumarate)-Based Controlled Release Scaffolds," 7th World Biomaterials Congress, Sydney, Australia, May 19, 2004.
373. M.E. Gomes*, H.L. Holtorf, R.L. Reis, and A.G. Mikos, "Influence of the Porosity of Starch-Based Fiber Meshes on the Proliferation and Osteogenic Differentiation of Marrow Stromal Cells Cultured under Flow Perfusion," 7th World Biomaterials Congress, Sydney, Australia, May 20, 2004.
374. H.L. Holtorf*, J.A. Jansen, and A.G. Mikos, "Effect of Dexamethasone on Osteodifferentiation of MSC/Scaffold Constructs under Flow Perfusion," 7th World Biomaterials Congress, Sydney, Australia, May 20, 2004.
375. E.L. Hedberg*, H.C. Kroeze-Deutman, C.K. Shih, R.S. Crowther, D.H. Carney, A.G. Mikos, and J.A. Jansen, "Controlled Release from Biodegradable Polymeric Scaffolds for Repair of Segmental Bone Defects," 7th World Biomaterials Congress, Sydney, Australia, May 21, 2004.
376. T.A. Holland*, J.K. Tessmar, Y. Tabata, and A.G. Mikos, "Growth Factor Release from Injectable, Enzymatically-Degradable Hydrogel Composites for Cartilage Tissue Engineering," 7th World Biomaterials Congress, Sydney, Australia, May 21, 2004.
377. H. Ueda*, S. Jo, D.M. Ammon, and A.G. Mikos, "Sustained Release of Fluocinolone Acetonide from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 12, 2004.
378. M.E. Gomes*, C.M. Bossano, C.M. Johnston, R.L. Reis, and A.G. Mikos, "Bone Growth Factors Expressed by Marrow Stromal Cells Cultured on Starch/Polycaprolactone Fiber Mesh Scaffolds under Flow Perfusion Conditions," Joint Meeting of Tissue Engineering Society International and European Tissue Engineering Society, Lausanne, Switzerland, October 11, 2004.
379. H. Park*, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogels for TGF- β 1 and Chondrocyte Delivery for Cartilage Tissue Engineering," Joint Meeting of Tissue Engineering Society International and European Tissue Engineering Society, Lausanne, Switzerland, October 12, 2004.
380. M. Wettergreen*, B. Bucklen, A.G. Mikos, and M.A.K. Liebschner, "Tailoring the Mechanical Environment of Scaffolds with Computer Aided Design and Rapid Prototyping," Annual BMES Fall Meeting, Philadelphia, Pennsylvania, October 14, 2004.
381. H. Castano*, J.F. Alvarez-Barreto, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas, "The Ability of Marrow Stromal Cells to Regenerate Bone Is Controlled by their Differentiation Stage," Annual BMES Fall Meeting, Philadelphia, Pennsylvania, October 16, 2004.
382. A.G. Mikos*, "Synthetic Polymers for Tissue Engineering," Annual AIChE Meeting, Austin, Texas, November 8, 2004.

383. H. Castano, J. van den Dolder, J.A. Jansen, A.G. Mikos, and V.I. Sikavitsas*, "The Differentiation Stage of Marrow Stromal Osteoblasts Influences their Ability to Induce *In Vivo* Bone Formation in an Orthotopic Site," Annual AIChE Meeting, Austin, Texas, November 10, 2004.
384. A.G. Mikos*, "Biodegradable, *In-Situ* Crosslinkable Hydrogels as Injectable Carriers for Cell and Drug Delivery," Southeastern Regional ACS Meeting, Research Triangle Park, North Carolina, November 12, 2004.
385. A.G. Mikos*, "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, November 29, 2004.
386. A.S. Mistry*, A.R. Barron, and A.G. Mikos, "*In Vitro* Accelerated Degradation of a Poly(Propylene Fumarate)-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," 22nd Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 10, 2005.
387. C.-Y. Lin*, R.M. Schek, A.S. Mistry, X. Shih, A.G. Mikos, P.H. Krebsbach, and S.J. Hollister, "Functional Bone Tissue Engineering Using *Ex Vivo* Gene Therapy and Topology Optimized, Biodegradable Polymer Composite Scaffolds," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 20, 2005.
388. T.A. Holland*, E.W.H. Bodde, L.S. Baggett, Y. Tabata, A.G. Mikos, and J.A. Jansen, "Osteochondral Repair in the Rabbit Model Utilizing Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Scaffolds," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
389. M.A. Wettergreen, W. Sun, A.G. Mikos, and M.A.K. Liebschner*, "Geometric Characterization of Scaffold Building Blocks for Tissue Engineering," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
390. M.E. Gomes*, R.L. Reis, and A.G. Mikos, "Bone Marrow Stromal Cells Cultured on Starch Based Three-Dimensional Scaffolds in a Flow Perfusion Bioreactor: A Promising *In-Vitro* Approach for Obtaining Bone Tissue Substitutes," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
391. T.G. Chu*, R.L. Stewart, S.J. Warden, C.H. Turner, and A.G. Mikos, "A Load-Bearing, Biodegradable BMP Carrier for Bone Regeneration in a Segmental Defect," Annual Meeting of Orthopaedic Research Society, Washington, D.C., February 21, 2005.
392. A.G. Mikos*, "Injectable Scaffolds for Bone and Cartilage Tissue Engineering," 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 24, 2005.
393. X. Shi*, J. Hudson, P.P. Spicer, R. Krishnamoorti, J.M. Tour, and A.G. Mikos, "Rheological Behavior and Mechanical Reinforcement of Poly(Propylene Fumarate)-Based Single-Walled Carbon Nanotube Composites," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 28, 2005.
394. H.L. Holtorf*, J.A. Jansen, and A.G. Mikos, "Flow Perfusion Culture Induces the Osteoblastic Differentiation of Marrow Stromal Cell-Scaffold Constructs in the Absence of Dexamethasone," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 29, 2005.
395. H.L. Holtorf*, N. Datta, J.A. Jansen, and A.G. Mikos, "Pore Size of Fiber Mesh Scaffolds Affects the Osteoblastic Differentiation of Seeded Marrow Stromal Cells Cultured in a Flow Perfusion Bioreactor," 30th Annual Meeting of the Society For Biomaterials, Memphis, Tennessee, April 30, 2005.
396. A.G. Mikos*, "Engineering Complex Orthopaedic Tissues," Tissue Engineering: The Next Generation Workshop, Cambridge, Massachusetts, May 3, 2005.
397. H.L. Holtorf, J.A. Jansen, and A.G. Mikos*, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," 2nd Aegean Conference on Tissue Engineering, Heraklion, Crete, Greece, May 24, 2005.
398. W.J.E.M. Habraken*, J.G.C. Wolke, A.G. Mikos, and J.A. Jansen, "Calcium Phosphate/PLGA Microsphere Composites: Physical Properties and Degradation Characteristics," 2nd Aegean Conference on Tissue Engineering, Heraklion, Crete, Greece, May 24, 2005.
399. F.K. Kasper*, S.K. Seidlits, M.A. Barry, and A.G. Mikos, "*In Vitro* Release of Plasmid DNA from Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," 32nd International Symposium on Controlled Release of Bioactive Materials, Miami Beach, Florida, June 22, 2005.
400. F.K. Kasper*, T. Kushibiki, Y. Kimura, A.G. Mikos, and Y. Tabata, "*In Vivo* Release of Plasmid DNA from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres," 32nd International Symposium on Controlled Release of Bioactive Materials, Miami Beach, Florida, June 22, 2005.

401. A.G. Mikos*, T.A. Holland, F.K. Kasper, and J.S. Temenoff, "Cell and Bioactive Factor Delivery from Injectable, Biodegradable Hydrogel Scaffolds for Tissue Engineering," 3rd International Conference on Materials for Advanced Technologies, Singapore, July 8, 2005.
402. H.L. Holtorf, J.A. Jansen, and A.G. Mikos*, "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Flow Perfusion Bioreactor," 7th International Bone Fluid Flow Workshop, New York, New York, September 21, 2005.
403. S.A. Moore*, J. Tessmar, and A.G. Mikos, "Matrix Metalloproteinase-Sensitive Hydrogels for Articular Cartilage Engineering," Annual BMES Fall Meeting, Baltimore, Maryland, September 29, 2005.
404. M.C. Hacker* and A.G. Mikos, "Novel Macromers for the Formation of Injectable, Calcium-Binding, *In Situ* Hardening Hydrogels," Annual BMES Fall Meeting, Baltimore, Maryland, September 29, 2005.
405. A.S. Mistry*, A.R. Barron, A.G. Mikos, and J.A. Jansen, "Degradation and Biocompatibility of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," Annual BMES Fall Meeting, Baltimore, Maryland, September 30, 2005.
406. Z.S. Patel*, Y. Tabata, and A.G. Mikos, "*In Vitro* Release of Vascular Endothelial Growth Factor from Gelatin Microparticles," Annual BMES Fall Meeting, Baltimore, Maryland, October 1, 2005.
407. A.G. Mikos*, "Biodegradable Polymers for Tissue Engineering," Texas/United Kingdom Symposium on Medicine and Medical Devices, Rice University, Houston, Texas, October 10, 2005.
408. A.G. Mikos*, "Trends in Tissue Engineering Research: An Editor's Perspective," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 22, 2005.
409. N. Datta, Q.P. Pham, U. Sharma*, V.I. Sikavitsas, J.A. Jansen, and A.G. Mikos, "*In Vitro* Generated Extracellular Matrix and Fluid Shear Stress Synergistically Enhance 3D Osteoblastic Differentiation," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 23, 2005.
410. A.S. Mistry*, M. Hacker, A.R. Barron, and A.G. Mikos, "Accelerated Degradation of a PPF-Based/Alumoxane Nanocomposite for Bone Tissue Engineering: Mechanical Properties and Macromolecular Structure," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 24, 2005.
411. H. Park*, J.S. Temenoff, and A.G. Mikos, "Injectable Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogel Composites for Concurrent Delivery of Marrow Stromal Cells and Growth Factors," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 24, 2005.
412. U. Sharma, Q.P. Pham*, N. Datta, and A.G. Mikos, "Using Bone-like ECM Produced *In Vitro* to Influence Osteoblastic Differentiation of Marrow Stromal Cells," Annual AIChE Meeting, Cincinnati, Ohio, November 3, 2005.
413. A.G. Mikos*, "Injectable Hydrogel Composites," 6th Symposium of International Cartilage Repair Society, San Diego, California, January 10, 2006.
414. H. Park*, T.A. Holland, J.S. Temenoff, and A.G. Mikos, "Injectable Biodegradable Hydrogel Composites for Cell and Growth Factor Delivery for Cartilage Tissue Engineering," 6th Symposium of International Cartilage Repair Society, San Diego, California, January 10, 2006.
415. M.C. Hacker*, B.B. Ma, and A.G. Mikos, "Macromers for Injectable Cell Carriers for Tissue Engineering Applications," 24th Scientific Conference of Society for Physical Regulation in Biology and Medicine, Cancun, Mexico, January 11, 2006.
416. M.C. Hacker and A.G. Mikos*, "Design of Injectable Biodegradable Polymers for Tissue Regeneration," 24th Scientific Conference of Society for Physical Regulation in Biology and Medicine, Cancun, Mexico, January 12, 2006.
417. A.G. Mikos*, "Bioreactors for Bone Tissue Engineering," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, Pennsylvania, April 25, 2006.
418. B. Sitharaman*, L.A. Tran, P.P. Spicer, I. Rusakova, A.G. Mikos, and L.J. Wilson, "Fabrication and Characterization of Carbon Nanostructure *In Situ* Crosslinkable Composites for Bone Tissue Engineering," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, Pennsylvania, April 25, 2006.
419. M.C. Hacker*, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Macromers for the Fabrication of Injectable, Calcium-Binding Hydrogels," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 27, 2006.
420. F.K. Kasper*, E. Jerkins, K. Tanahashi, M.A. Barry, Y. Tabata, and A.G. Mikos, "Characterization of DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres *In Vitro*," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 27, 2006.

421. B. Sitharaman*, L.A. Tran, R.D. Bolskar, S.D. Flamm, R. Muthupillai, A.G. Mikos, and L.J. Wilson, "Gd@(Carbon Nanostructures) as Nanoprobes for Cellular Magnetic Resonance Imaging," 31st Annual Meeting of the Society For Biomaterials, Pittsburgh, Pennsylvania, April 28, 2006.
422. A.G. Mikos*, "Biomaterials for Tissue Engineering," Rebuilding Humans: The Seattle Tissue Engineering Initiative Symposium, Seattle, Washington, May 27, 2006.
423. A.G. Mikos*, "Polymeric Systems in Tissue Engineering and Regeneration," 1st Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal, June 1, 2006.
424. A.G. Mikos*, "New Developments on Polymers for Tissue Engineering, Replacement and Regeneration," 1st Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal, June 2, 2006.
425. A.G. Mikos*, "Nanobiomaterials for Tissue Engineering," Symposium on Nanomedicine and Tissue Engineering in Memory of Professor C.J. Lee, National Tsing Hua University, Hsinchu, Taiwan, June 23, 2006.
426. A.G. Mikos*, "*In Vitro* Generation of Extracellular Matrix for Use as a Tissue Engineering Scaffold," Conference Celebrating Thirty Years of Robert Langer's Science, Cambridge, Massachusetts, July 15, 2006.
427. J.K. Tessmar*, M.A. Burrell, A. Rivelli, A.M. Göpferich, and A.G. Mikos, "Modification of the Release from Oligo(Poly(Ethylene Glycol) Fumarate) Based Hydrogels by Copolymerization with Lipophilic Poly(Propylene Glycol)," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 24, 2006.
428. F.K. Kasper*, S. Young, K. Tanahashi, M.A. Barry, Y. Tabata, J.A. Jansen, and A.G. Mikos, "Evaluation of Bone Regeneration by DNA Release from Composites of Oligo(Poly(Ethylene Glycol) Fumarate) and Cationized Gelatin Microspheres in a Critical-Sized Calvarial Defect," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 23, 2006.
429. Z.S. Patel*, Y. Tabata, and A.G. Mikos, "Gelatin Microparticles for the Controlled Release of an Angiogenic and an Osteogenic Growth Factor," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 23, 2006.
430. A. Saraf, M. Hacker, and A.G. Mikos*, "Synthesis of a Poly(Ethylenimine) Conjugate of Hyaluronic Acid for Gene Delivery Applications," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 25, 2006.
431. A.G. Mikos*, "Bioreactors for Tissue Engineering," 9th Annual Meeting of Japanese Society for Tissue Engineering, Kyoto, Japan, September 8, 2006.
432. M.C. Hacker*, J.D. Kretlow, L. Klouda, B.B. Ma, and A.G. Mikos, "Synthesis and Characterization of Novel Calcium-Binding Macromers for Injectable Tissue Engineering," Annual BMES Fall Meeting, Chicago, Illinois, October 13, 2006.
433. A. Haesslein, M.C. Hacker*, H. Ueda, D.M. Ammon, R.N. Borazjani, J.F. Kunzler, J.C. Salamone, and A.G. Mikos, "Long-Term Release of Glaucoma Therapeutics from Photo-Crosslinked Poly(Propylene Fumarate) Matrices," Annual BMES Fall Meeting, Chicago, Illinois, October 14, 2006.
434. A.G. Mikos*, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery Systems and Therapeutic Systems, Annual AIChE Meeting, San Francisco, California, November 13, 2006.
435. E. Christenson*, W. Soofi, N. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," Annual AIChE Meeting, San Francisco, California, November 14, 2006.
436. M.B. Murphy* and A.G. Mikos, "The Hydroxyapatite Affinity and Binding Kinetics of Peptides Modified with Bisphosphonates, Poly(Aspartic Acid), and Poly(Glutamic Acid)," Annual AIChE Meeting, San Francisco, California, November 14, 2006.
437. M.C. Hacker*, L. Klouda, B.B. Ma, J.D. Kretlow, and A.G. Mikos, "Novel Thermally Responsive Macromers for the Fabrication of Injectable, *In Situ* Crosslinkable Hydrogels," Annual AIChE Meeting, San Francisco, California, November 14, 2006.
438. U. Sharma, Q. Pham*, and A.G. Mikos, "Flow Perfusion Culture of Marrow Stromal Cells on Electrospun Polycaprolactone Scaffolds," Annual AIChE Meeting, San Francisco, California, November 17, 2006.
439. A.G. Mikos*, "Injectable Hydrogels for Stem Cell Delivery," 1st International Collaborative Symposium on Stem Cell Research, Seoul, Korea, December 8, 2006.

440. A.G. Mikos*, "Nanobiomaterials for Tissue Engineering," International Conference on Biomedical and Pharmaceutical Engineering, Singapore, December 11, 2006.
441. A.G. Mikos*, "Delivery of DNA, Proteins and Cells with Injectable Scaffolds," International Conference on Biomedical and Pharmaceutical Engineering, Singapore, December 12, 2006.
442. A.G. Mikos*, "Biomaterials in Tissue Engineering," Edith and Peter O'Donnell Award Lecture, Annual Conference of Texas Academy of Medicine, Engineering, Science and Technology, Austin, Texas, January 4, 2007.
443. A.G. Mikos*, "Delivery of DNA, Proteins, and Cells with Injectable Hydrogels," Symposium on Musculoskeletal Biology, Stem Cells and Clinical Translation: A Celebration of Arnold Caplan's 65th Birthday, Case Western Reserve University, Cleveland, Ohio, January 12, 2007.
444. H.-H. Chen*, A.G. Mikos, Q.P. Pham, U. Sharma, and Z.-P. Luo, "Finite Element Analyses of Flow Field in Multilayer Nanofiber/Microfiber Scaffolds," Annual Meeting of Orthopaedic Research Society, San Diego, California, February 11, 2007.
445. E.M. Christenson*, W. Soofi, N.R. Cameron, and A.G. Mikos, "Biodegradable Fumarate-Based PolyHIPEs as Tissue Engineering Scaffolds," Annual Meeting of Orthopaedic Research Society, San Diego, California, February 11, 2007.
446. E.M. Christenson*, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "Biodegradable PolyHIPEs as Tissue Engineering Scaffolds for Craniofacial Reconstruction," Annual Meeting of the International Association for Dental Research, New Orleans, Louisiana, March 23, 2007.
447. S.C.G. Leeuwenburgh*, J.A. Jansen, and A.G. Mikos, "Functionalization of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels with Finely Dispersed Calcium Phosphate Nanocrystals for Bone-Substituting Purposes," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
448. H. Park, J.S. Temenoff, and A.G. Mikos*, "*In Vitro* Chondrogenic Differentiation of Rabbit Marrow Stromal Cells Encapsulated in Oligo(Poly(Ethylene Glycol) Fumarate) Injectable Hydrogel Composites," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
449. X. Shi, B. Sitharaman, Q.P. Pham, J.L. Hudson, L.J. Wilson, J.M. Tour, and A.G. Mikos*, "*In Vitro* Cytotoxicity of Single-Walled Carbon Nanotube/Poly(Propylene Fumarate) Nanocomposites," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
450. E.M. Christenson*, W. Soofi, J.L. Holmes, N.R. Cameron, and A.G. Mikos, "High Porosity Tissue Engineering Scaffolds by Emulsion Templating," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 20, 2007.
451. F.K. Kasper* and A.G. Mikos, "Drug Delivery and Bioreactor Strategies in Tissue Engineering," 1st Summer School of the European Chapter of the Tissue Engineering and Regenerative Medicine International Society: Key Elements of Tissue Engineering, Madeira, Portugal, June 3, 2007.
452. F.K. Kasper* and A.G. Mikos, "Biomimetic Strategies for Tissue Engineering of Bone," 3rd Marie Curie Cutting Edge InVENTS Conference on Biomineralisation of Polymeric Materials, Bioactive Biomaterials and Biomimetic Methodologies, Madeira, Portugal, June 4, 2007.
453. Q.P. Pham, F.K. Kasper*, U. Sharma, A.S. Mistry, A.W. Yasko, J.A. Jansen, and A.G. Mikos, "Osteoinductive Capacity and Angiogenicity of an *In Vitro* Generated Extracellular Matrix," 3rd Marie Curie Cutting Edge InVENTS Conference on Biomineralisation of Polymeric Materials, Bioactive Biomaterials and Biomimetic Methodologies, Madeira, Portugal, June 6, 2007.
454. E.W.H. Bodde*, O.C. Boerman, F.G.M. Russel, A.G. Mikos, P.H.M. Spauwen, and J.A. Jansen, "Bone Response to Cranial Calcium Phosphate Cement Implants with a High and Low Dose of rhBMP-2 in Rats," TERMIS-North America Conference and Exposition, Toronto, Canada, June 14, 2007.
455. F.K. Kasper, Q.P. Pham, and A.G. Mikos*, "Generation of Tissue Engineering Scaffolds with a Flow Perfusion Bioreactor," 8th International Bone Fluid Flow Workshop, New York, New York, September 14, 2007.
456. K. Kim*, D. Dean, A.G. Mikos, and J.P. Fisher, "Effect of Cell Seeding Density on Osteogenic Signaling of Bone Marrow Stromal Cells in 3D Scaffolds," Annual BMES Fall Meeting, Los Angeles, California, September 27, 2007.
457. A.G. Mikos*, "Biomaterials in Tissue Engineering," Robert A. Pritzker Distinguished Lectureship Award Lecture, Annual BMES Fall Meeting, Los Angeles, California, September 28, 2007.
458. S. Young*, C. Nguyen, J.D. Kretlow, A.G. Mikos, and M. Wong, "Poly(Propylene Fumarate) Scaffolds with Surface Porosity for Space Maintenance of Mandibular Defects," Annual Meeting of the

- American Association of Oral and Maxillofacial Surgeons, Honolulu, Hawaii, October 11, 2007.
459. C. Nguyen*, S. Young, J.D. Kretlow, M. Wong, and A.G. Mikos, "Soft Tissue Response to Implantation of Hybrid Poly(Propylene Fumarate) Scaffolds in a Critical Size Mandibular Defect," Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, Honolulu, Hawaii, October 11, 2007.
 460. A.G. Mikos*, "Nanobiomaterials for Tissue Engineering," Integrated Research Team Meeting on Nanotechnology Solutions for Long-Term Implantable Devices, Houston, Texas, October 24, 2007.
 461. A.S. Mistry, Q. Pham, C. Schouten, T. Yeh, A.G. Mikos*, and J.A. Jansen, "*In Vivo* Hard Tissue Response and Degradation of Porous Fumarate-Based Polymer/Alumoxane Nanocomposites for Bone Tissue Engineering," Annual AIChE Meeting, Salt Lake City, Utah, November 5, 2007.
 462. A.G. Mikos*, "Biomaterials for Drug Delivery and Tissue Engineering," Annual Meeting of the Dutch Society for Biomaterials and Tissue Engineering, Lunteren, The Netherlands, December 12, 2007.
 463. L. Klouda*, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Synthesis and Characterization of Novel Thermoresponsive, Chemically Crosslinkable Macromers for the Fabrication of *In Situ* Forming Hydrogels," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
 464. J.D. Kretlow*, M.C. Hacker, L. Klouda, and A.G. Mikos, "Injectable Calcium-Binding Macromers for Bone Tissue Engineering," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
 465. H. Park*, J.S. Temenoff, Y. Tabata, A.I. Caplan, R.M. Raphael, J.A. Jansen, and A.G. Mikos, "Effect of Dual Growth Factor Delivery on Chondrogenic Differentiation of Rabbit Marrow Mesenchymal Stem Cells Encapsulated in Injectable Hydrogel Composites," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
 466. X. Guo, H. Park*, and A.G. Mikos, "*In Vitro* Osteogenic Differentiation of Rabbit Mesenchymal Stem Cells Encapsulated in Biodegradable Hydrogel Composites," 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, February 8, 2008.
 467. A.G. Mikos*, "Nanobiomaterials for Bone Tissue Engineering," Conference on Regenerative Endodontics, Nova Southeastern University, Fort Lauderdale, Florida, February 22, 2008.
 468. A.G. Mikos*, "Synthetic Scaffolds for Tissue Engineering," 10th Anniversary Celebration of Korean Tissue Engineering and Regenerative Medicine Society Meeting, Seoul, Korea, May 23, 2008.
 469. J. Liao*, X. Guo, Q.P. Pham, F.K. Kasper, and A.G. Mikos, "Effect of Transforming Growth Factor- β 1 on Chondrogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Microfiber Scaffolds," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
 470. S.A. Chew*, M.C. Hacker, and A.G. Mikos, "Biodegradable Hyperbranched Polycationic Polymers with Varying Hydrophilic Spacer Length for Gene Delivery," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
 471. A.M. Martins, Q.P. Pham, P.B. Malafaya, R.A. Sousa, M.E. Gomes, F.K. Kasper, R.L. Reis*, and A.G. Mikos, "The Role of Lipase and α -Amylase in both the Degradation of Starch/Polycaprolactone Fiber Meshes and the Osteogenic Differentiation of Rat Marrow Stromal Cells," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008.
 472. A.G. Mikos* and F.K. Kasper, "Tissue Engineering and Its Future Perspective," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
 473. S. Danti*, D. D'Alessandro, A.S. Mistry, A. Saraf, S. Berrettini, and A.G. Mikos, "Tissue Engineered Constructs as Human Ossicular Chain Replacements," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
 474. M. van der Zande*, B. Sitharaman, A. Veltien, X.F. Walboomers, J.S. Ananta, L.J. Wilson, A.G. Mikos, A. Heerschap, and J.A. Jansen, "*In Vivo* MRI Visualization of the Distribution Pattern of Gadolinium Labeled Single Walled Carbon Nanotubes Released from Subcutaneous Implanted Poly(Lactic-co-Glycolic Acid) Scaffolds in Rats," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
 475. L. Klouda*, M.C. Hacker, J.D. Kretlow, and A.G. Mikos, "Novel Thermoresponsive, *In Situ* Crosslinkable Hydrogels for Tissue Engineering," 8th World Biomaterials Congress, Amsterdam, The Netherlands, June 1, 2008.
 476. B. Sitharaman, X. Shi, X.F. Walboomers, H. Liao, V. Cuijpers, L.J. Wilson, A.G. Mikos*, and J.A. Jansen, "Ultra-Short Single Walled Carbon Nanotube/Biodegradable Polymer Nanocomposites for

- Bone Tissue Engineering: Hard and Soft Tissue Responses in a Rabbit Model," 8th World Biomaterials Congress, Amsterdam, The Netherlands, June 1, 2008.
477. A.G. Mikos*, "From Material to Tissue: Biomaterial Development and Tissue Engineering," A Celebration of Excellence in Scientific and Engineering Achievement on the Occasion of Nicholas Peppas' 60th Birthday, Austin, Texas, August 8, 2008.
 478. A.G. Mikos*, "Bioengineering Technologies in Regenerative Medicine," Annual Symposium of Baylor College of Medicine Medical Scientist Training Program, Galveston, Texas, August 23, 2008.
 479. F.K. Kasper, R.A. Thibault, and A.G. Mikos*, "Mineralized Extracellular Matrix Constructs for Bone Tissue Engineering," 10th International Symposium on Biomineralization, Lianyungang, China, September 3, 2008.
 480. R.A. Thibault*, F.K. Kasper, and A.G. Mikos, "Extracellular Matrix Constructs Enhance the Osteogenic Differentiation of Marrow Stromal Cells *In Vitro*," 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 22, 2008.
 481. A.G. Mikos*, Z.S. Patel, and S. Young, "Multi-Growth Factor Controlled Release for Bone Tissue Engineering," 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 24, 2008.
 482. F.K. Kasper*, X. Guo, H. Park, and A.G. Mikos, "Growth Factor and Cell Delivery for Cartilage Tissue Engineering," 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 24, 2008.
 483. A.G. Mikos*, "Bioreactor Fabrication of Mineralized Bioactive Constructs for Tissue Engineering," International Conference on Research Strategy of Tissue Engineering, Jinan, China, October 25, 2008.
 484. A.G. Mikos*, "Synthetic Scaffolds for Tissue Engineering," Materials Engineering and Sciences Division Plenary Session, Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 485. X. Guo*, H. Park, J.S. Temenoff, Y. Tabata, A.I. Caplan, and A.G. Mikos, "Effect of Swelling Ratio of Injectable Hydrogel Composites on Chondrogenic Differentiation of Encapsulated Rabbit Marrow Mesenchymal Stem Cells *In Vitro*," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 486. K. Kim*, M. Patel, D. Dean, A.G. Mikos, and J.P. Fisher, "Endogenous Growth Factor Gene Expression Profile of Bone Marrow Stromal Cells on 3D Porous Poly(Propylene Fumarate)/Hydroxyapatite Nanocomposites," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 487. S.A. Chew*, M.C. Hacker, A. Saraf, and A.G. Mikos, "Effect of Hydrophilic Spacer Length on the Complexation of Novel Biodegradable Hyperbranched Polycationic Polymers and Plasmid DNA for Non-Viral Gene Delivery," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 488. J.D. Kretlow*, M.C. Hacker, B.B. Ma, L. Klouda, and A.G. Mikos, "Injectable, *In Situ* Hardening Macromers for Bone Tissue Engineering," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 489. L. Klouda*, M.C. Hacker, L.H. Barg-Walkow, J.D. Kretlow, and A.G. Mikos, "Cytocompatibility Evaluation of Novel Thermoresponsive and Chemically Crosslinkable Macromers for Injectable, *In Situ* Forming Hydrogels," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 490. E. Burdett*, A.G. Mikos, and J. Ludwig, "Ewing's Sarcoma Spheroids as a 3-D Model of *In Vivo* Biology Useful for High-Throughput Preclinical Screening of Antineoplastic Drug Candidates," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 19, 2008.
 491. F.K. Kasper*, R.A. Thibault, and A.G. Mikos, "Mineralized Extracellular Matrix Constructs Support the Osteogenic Differentiation of Mesenchymal Stem Cells *In Vitro*," Annual AIChE Meeting and Centennial Celebration, Philadelphia, Pennsylvania, November 20, 2008.
 492. L. Klouda*, M.C. Hacker, L.H. Barg-Walkow, J.D. Kretlow, and A.G. Mikos, "Development of Novel Thermally Responsive, *In Situ* Crosslinkable Hydrogels for Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, December 3, 2008.
 493. A.M. Martins*, A. Saraf, F.K. Kasper, C.M. Alves, R.L. Reis, and A.G. Mikos, "Lipase Promotes Osteogenic Differentiation of Marrow Stromal Cells on SPCL Fiber Meshes under Flow Perfusion Conditions," TERMIS-North America Annual Conference and Exposition, San Diego, California, December 8, 2008.
 494. M. Shi, J.D. Kretlow*, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, "Porous Poly(Methyl

- Methacrylate) Implants for Osseous Space Maintenance Following Craniofacial Injury,” First Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 15, 2009.
495. A.G. Mikos*, “Synthetic Scaffolds for Tissue Engineering,” First International Conference on Tissue Engineering and Stem Cell Research Using Nanomaterials – NANOBIO 2009, Kochi, India, February 17, 2009.
 496. A.G. Mikos*, “Current Strategies in Tissue Engineering,” First International Conference on Tissue Engineering and Stem Cell Research Using Nanomaterials – NANOBIO 2009, Kochi, India, February 19, 2009.
 497. A.G. Mikos*, “Synthetic Scaffolds for Tissue Engineering and Regenerative Medicine,” 4th World Congress on Regenerative Medicine, Bangkok, Thailand, March 13, 2009.
 498. J. Liao*, F.K. Kasper, and A.G. Mikos, “Effect of Flow Perfusion on Osteogenic Differentiation of Mesenchymal Stem Cells Cultured on Biodegradable Microfiber Scaffolds,” 26th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 19, 2009.
 499. S.A. Chew*, M.C. Hacker, A. Saraf, and A.G. Mikos, “Effect of Types of Amines on the Complexation of Novel Biodegradable Hyperbranched Polycationic Polymers and Plasmid DNA for Non-Viral Gene Delivery,” 26th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 20, 2009.
 500. E. Burdett*, A.G. Mikos, and J. Ludwig, “Ewing’s Sarcoma Spheroids as a 3-D Model of *In Vivo* Biology Useful for High-Throughput Preclinical Screening of Antineoplastic Drug Candidates,” 26th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 20, 2009.
 501. M. Shi*, J.D. Kretlow, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, “Characterization of Porous Poly(Methyl Methacrylate) Scaffolds for Osseous Space Maintenance,” 26th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, Texas, March 20, 2009.
 502. A.G. Mikos*, “Nanobiomaterials for Tissue Engineering: New Tools and Logics,” Annual Meeting of the International Association for Dental Research, Miami, Florida, April 3, 2009.
 503. P.M. Mountziaris*, P.R. Kramer, and A.G. Mikos, “Evaluation of a Microparticle-Based Intra-Articular Controlled Release System in the Rat Temporomandibular Joint,” 33rd Annual Meeting of the Society For Biomaterials, San Antonio, Texas, April 24, 2009.
 504. J.D. Kretlow*, M.C. Hacker, L. Klouda, B.B. Ma, and A.G. Mikos, “Thermosensitive Polymer Interactions with Ions to Mediate Micelle and Gel Formation,” 33rd Annual Meeting of the Society For Biomaterials, San Antonio, Texas, April 24, 2009.
 505. F.K. Kasper and A.G. Mikos*, “Tissue Engineering Education,” 33rd Annual Meeting of the Society For Biomaterials, San Antonio, Texas, April 25, 2009.
 506. A.G. Mikos*, “Major World Initiatives in the Field of Tissue Engineering and Regenerative Medicine: Experiences in North America,” 33rd Annual Meeting of the Society For Biomaterials, San Antonio, Texas, April 25, 2009.
 507. A.G. Mikos*, “Building a Better Biomaterial,” Chemstations Lectureship Award Lecture, 116th American Society for Engineering Education Annual Conference and Exposition, Austin, Texas, June 15, 2009.
 508. J.D. Kretlow*, M. Shi, S. Young, F.K. Kasper, M. Wong, and A.G. Mikos, “Porous Poly(Methyl Methacrylate) Implants for Osseous Space Maintenance and Promotion of Soft Tissue Healing around Craniofacial Bone Defects,” 2nd World Congress of TERMIS, Seoul, Korea, August 31, 2009.
 509. M. Shi, J.D. Kretlow, S. Young, F.K. Kasper*, M. Wong, and A.G. Mikos, “Antibiotic-Releasing Porous Poly(Methyl Methacrylate) Scaffolds for Osseous Space Maintenance and Infection Control,” 2nd World Congress of TERMIS, Seoul, Korea, August 31, 2009.
 510. A. Saraf, L.S. Baggett, F.K. Kasper*, and A.G. Mikos, “Regulated Non-Viral Gene Delivery from Coaxial Electrospun Fiber Mesh Scaffolds,” 2nd World Congress of TERMIS, Seoul, Korea, August 31, 2009.
 511. F.K. Kasper* and A.G. Mikos, “Synthetic Scaffolds for Bone Tissue Engineering,” 2nd World Congress of TERMIS, Seoul, Korea, September 2, 2009.
 512. X. Guo*, H. Park, F.K. Kasper, and A.G. Mikos, “*In Vitro* Generation of an Osteochondral Construct Using Injectable Hydrogel Composites Encapsulating Rabbit Marrow Mesenchymal Stem Cells,” 2nd World Congress of TERMIS, Seoul, Korea, September 2, 2009.

513. A.M. Martins, A. Saraf, R.A. Sousa, F.K. Kasper, C.M. Alves, R.L. Reis*, and A.G. Mikos, "Towards Osteogenic Differentiation of Bone Marrow Stromal Cells Cultured onto Starch/Poly(ϵ -caprolactone) Fiber Mesh Scaffolds: The Efficiency of Enzymes and Flow Perfusion Bioreactors," 2nd World Congress of TERMIS, Seoul, Korea, September 2, 2009.
514. A.M. Martins, F.K. Kasper, J.D. Kretlow, A.R. Costa-Pinto*, P.B. Malafaya, N.M. Neves, C.M. Alves, R.L. Reis, and A.G. Mikos, "*In Vivo* Responsive Scaffolds with the Ability of *In Situ* Pore Formation: A Novel Strategy for Bone Tissue Engineering," 2nd World Congress of TERMIS, Seoul, Korea, September 2, 2009.
515. J. Liao, X. Guo, F.K. Kasper*, and A.G. Mikos, "Effect of a Mineralized Extracellular Matrix Scaffold Generated in Flow Perfusion on the Osteogenic Differentiation of Mesenchymal Stem Cells," 2nd World Congress of TERMIS, Seoul, Korea, September 2, 2009.
516. J.D. Kretlow*, M.C. Hacker, L. Klouda, B.B. Ma, and A.G. Mikos, "Hydrophobic Pendant Chain Addition Affects Gelation Properties of Dual-Stimulus Responsive Smart Materials Incorporating N-Isopropylacrylamide and Vinylphosphonic Acid," 2nd World Congress of TERMIS, Seoul, Korea, September 3, 2009.
517. A.G. Mikos*, "Synthetic Scaffolds for Stem Cell Delivery and Regenerative Medicine," Texas-U.K. Collaboration, Rice University, Houston, Texas, September 15, 2009.
518. P.M. Mountziaris* and A.G. Mikos, "Effect of TNF-Alpha on *In Vitro* Osteogenic Differentiation of Mesenchymal Stem Cells," Annual AIChE Meeting, Nashville, Tennessee, November 9, 2009.
519. F.K. Kasper* and A.G. Mikos, "Emerging Biomaterial Approaches for Bone Regeneration," Honorary Series in Biomaterials, Annual AIChE Meeting, Nashville, Tennessee, November 10, 2009.
520. A.G. Mikos*, "Emerging Biomaterial Approaches for Bone Regeneration," 11th Annual North Carolina Tissue Engineering and Regenerative Medicine Conference, Winston-Salem, North Carolina, November 13, 2009.
521. P.P. Spicer*, J.D. Kretlow, M. Shi, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos, "*In Situ* Formation of Porous Poly(Methyl Methacrylate) Scaffolds for Space Maintenance of Craniofacial Bone Defects," 2nd Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 11, 2010.
522. J.D. Kretlow, M. Shi, S. Young, P.P. Spicer, N. Demien, J.A. Jansen, M.E. Wong, F.K. Kasper*, and A.G. Mikos, "Porous Poly(Methyl Methacrylate) Space Maintainers Promote Soft Tissue Coverage of Clean/Contaminated Alveolar Bone Defects," 2nd Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 11, 2010.
523. M. Shi, J.D. Kretlow, S. Young, M.E. Wong, F.K. Kasper*, and A.G. Mikos, "Antibiotic-Releasing Porous Poly(Methyl Methacrylate) Constructs for Osseous Space Maintenance and Infection Control," 2nd Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 11, 2010.
524. M. Shi*, J.D. Kretlow, F.K. Kasper, A.G. Mikos, S. Young, and M.E. Wong, "Poly(Lactic-co-Glycolic Acid) Microsphere-Incorporating Poly(Methyl Methacrylate) Constructs for Osseous Space Maintenance and Drug Delivery," First Global Congress on NanoEngineering for Medicine and Biology, Houston, Texas, February 10, 2010.
525. A.G. Mikos*, "Emerging Biomaterial Approaches for Bone Regeneration," Biomaterials Day at Texas A&M University, College Station, Texas, February 22, 2010.
526. M. Shi*, J.D. Kretlow, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Poly(Lactic-co-Glycolic Acid) Microsphere-Incorporating Poly(Methyl Methacrylate) Constructs for Craniofacial Tissue Engineering," Biomaterials Day at Texas A&M University, College Station, Texas, February 22, 2010.
527. M. Shi, J.D. Kretlow, P. Spicer, A. Nguyen, S. Young, M.E. Wong, F.K. Kasper, and A.G. Mikos*, "Emerging Controlled Release Approaches for Bone Tissue Engineering," European Symposium on Controlled Drug Delivery, Egmond aan Zee, The Netherlands, April 9, 2010.
528. B.Y. Lu*, D.M. Yoon, E.L. Bakota, J.D. Hartgerink, F.K. Kasper, and A.G. Mikos, "Dual Delivery System of Bone Morphogenetic Protein-2 Using Gelatin Microparticles and Multi-Domain Peptides in Porous Poly(Propylene Fumarate) Scaffolds for Bone Tissue Engineering Applications," American Association for the Advancement of Science – Southwestern and Rocky Mountain Division Annual Meeting, Rice University, Houston, Texas, April 10, 2010.
529. K. Kim*, A. Lu, R. Breithaupt, D. Dean, A.G. Mikos, and J.P. Fisher, "The Effect of Crosslinking Density and Pore Geometry of Poly(Propylene Fumarate)/Diethyl Fumarate Composite Scaffolds on Osteogenic Signal Expression of Rat Bone Marrow Stromal Cells," 34th Annual Meeting of the

- Society For Biomaterials, Seattle, Washington, April 22, 2010.
530. M. Shi, J.D. Kretlow, S. Young, M.E. Wong, F.K. Kasper*, and A.G. Mikos, "Gelatin Microparticle-Incorporating Poly(Methyl Methacrylate) Constructs for Craniofacial Tissue Engineering," 34th Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 22, 2010.
 531. F.K. Kasper*, P.M. Mountziaris, S.N. Tzouanas, and A.G. Mikos, "Harnessing Inflammation in Strategies for Bone Tissue Engineering," 39th Annual Meeting of the American Aging Association, Portland, Oregon, June 6, 2010.
 532. C. Smid, R. Buchanan, M. Murphy, D. Blashki, D. Fan, E. De Rosa, D.M. Yoon, F.K. Kasper, X. Liu, H. Jones, P. Noble, B. Weiner, P. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti*, "An Injectable Scaffold Exhibiting Staggered Bioactive Release through Multi-Functional Components for Bone Fracture Repair," 37th Annual Meeting and Exposition of Controlled Release Society, Portland, Oregon, July 14, 2010.
 533. M. Shi, J.D. Kretlow, S. Young, M.E. Wong, A.G. Mikos, and F.K. Kasper*, "Gelatin Microparticle-Incorporating Poly(Methyl Methacrylate) Constructs for Craniofacial Tissue Engineering," 37th Annual Meeting and Exposition of Controlled Release Society, Portland, Oregon, July 14, 2010.
 534. A.G. Mikos*, "Advancing Biomaterial Strategies for Musculoskeletal Tissue Engineering," Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China, September 15, 2010.
 535. F.K. Kasper* and A.G. Mikos, "Evolving Approaches Harnessing Biomaterials for Bone Tissue Engineering," 16th International Biomedical Science and Technology Symposium, Istanbul, Turkey, September 29, 2010.
 536. A.G. Mikos*, "Advancing Biomaterial Strategies for Bone Tissue Engineering," Acta Biomaterialia Gold Medal Award Session, Annual BMES Fall Meeting, Austin, Texas, October 7, 2010.
 537. A. Henslee, D.-H. Gwak, A.G. Mikos, and F.K. Kasper*, "Development and Optimization of a Biodegradable Bone Cement for Clinical Applications," Annual BMES Fall Meeting, Austin, Texas, October 7, 2010.
 538. P.M. Mountziaris*, E.D. Lehman, F.K. Kasper, and A.G. Mikos, "Effect of Patterned TNF- α Delivery on In Vitro Osteogenic Differentiation of Mesenchymal Stem Cells," Annual BMES Fall Meeting, Austin, Texas, October 8, 2010.
 539. E. Burdett*, A.G. Mikos, F.K. Kasper, and J.A. Ludwig, "The Development of a 3D Tissue Engineered Bone Tumor Model," Annual BMES Fall Meeting, Austin, Texas, October 8, 2010.
 540. M. Bongio*, J.J.J.P. van den Beucken, S.C.G. Leeuwenburgh, A.G. Mikos, and J.A. Jansen, "Injectable Hybrid Hydrogels for Bone Regeneration," International Bone-Tissue-Engineering Congress, Hannover, Germany, October 8, 2010.
 541. M. Singh, F.K. Kasper*, and A.G. Mikos, "Cartilage Tissue Engineering Using Neonatal Human Dermal Fibroblasts," Annual BMES Fall Meeting, Austin, Texas, October 9, 2010.
 542. D.M. Yoon*, B.Y. Lu, E.L. Bakota, F.K. Kasper, J.D. Hartgerink, and A.G. Mikos, "Exploring Multi-Domain Peptides and Gelatin Microparticles as an Osteogenic Factor Delivery System," Annual BMES Fall Meeting, Austin, Texas, October 9, 2010.
 543. E.J. Levorson*, F.K. Kasper, and A.G. Mikos, "Development of a Chondrogenic Pellet Preculture System for Cartilage Tissue Engineering Applications," Annual BMES Fall Meeting, Austin, Texas, October 9, 2010.
 544. R. Buchanan*, M. Murphy, D.M. Yoon, A. Henslee, M. Nair, X. Liu, F.K. Kasper, P. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti, "Trifunctional Porogens for the Development of an Injectable Putty to Treat Traumatic Bone Defects," Annual BMES Fall Meeting, Austin, Texas, October 9, 2010.
 545. A.G. Mikos*, "Advancing Biomaterial Strategies for Bone Tissue Engineering," International Bone-Tissue-Engineering Congress, Hannover, Germany, October 9, 2010.
 546. A.G. Mikos*, "Advancing Biomaterial Strategies for Musculoskeletal Tissue Engineering," Food, Pharmaceutical and Bioengineering Award in Chemical Engineering Lecture, Annual AIChE Meeting, Salt Lake City, Utah, November 9, 2010.
 547. P.M. Mountziaris*, D.C. Sing, E.D. Lehman, P.R. Kramer, and A.G. Mikos, "Controlled Release of Anti-Tumor Necrosis Factor-Alpha siRNA from Biodegradable Polymeric Microparticles," Annual AIChE Meeting, Salt Lake City, Utah, November 10, 2010.
 548. L. Klouda, K.R. Perkins, F.K. Kasper*, and A.G. Mikos, "Fabrication and Characterization of Thermally Responsive, *In Situ* Crosslinkable Hydrogels Based on Poly(N-Isopropylacrylamide)," Annual AIChE Meeting, Salt Lake City, Utah, November 10, 2010.
 549. F.K. Kasper*, M.E. Wong, and A.G. Mikos, "Leveraging Clinical Products and Harnessing

- Inflammation in Strategies for Bone Regeneration," TERMIS-North America Annual Conference and Exposition Pre-Conference Workshop, Orlando, Florida, December 5, 2010.
550. K. Kim*, J. Wallace, D. Dean, A.G. Mikos, and J.P. Fisher, "Stereolithographical Bone Scaffold Fabrication and Its Enhanced Osteogenic Signal Expression Over Random Pore Architecture of Poly(Propylene Fumarate)/Diethyl Fumarate Composites," TERMIS-North America Annual Conference and Exposition, Orlando, Florida, December 6, 2010.
 551. J.E. Wallace*, A. Siblani, M. Wang, K. Kim, J.P. Fisher, A.G. Mikos, and D. Dean, "Continuous DLP Rendering of Tissue Engineering Scaffolds," TERMIS-North America Annual Conference and Exposition, Orlando, Florida, December 6, 2010.
 552. P.P. Spicer*, J.D. Kretlow, A.M. Henslee, M. Shi, S. Young, N. Demian, J.A. Jansen, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "*In Situ* Formation of Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Complex Regeneration," TERMIS-North America Annual Conference and Exposition, Orlando, Florida, December 7, 2010.
 553. V.V. Meretoja*, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Chondrogenesis of Mesenchymal Stem Cells under Flow Perfusion Conditions," TERMIS-North America Annual Conference and Exposition, Orlando, Florida, December 7, 2010.
 554. D.M. Yoon*, A.M. Henslee, A.A. Arango, L.P. Marruffo, M.B. Nair, T.D. Anver, H. Ather, N. Demian, M.E.K. Wong, F.K. Kasper, and A.G. Mikos, "Developing *In-Situ* Crosslinkable Scaffold to Mechanically Stabilize Mandibular Defects," TERMIS-North America Annual Conference and Exposition, Orlando, Florida, December 7, 2010.
 555. F.K. Kasper*, M.E. Wong, and A.G. Mikos, "Anticipation of Regulatory Pathways in Strategies for Bone Regeneration," Armed Forces Institute of Regenerative Medicine Interim Meeting, Washington, D.C., December 9, 2010.
 556. M. Shi*, J.D. Kretlow, P.P. Spicer, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Porous Poly(Methyl Methacrylate) Constructs for Osseous Space Maintenance and Infection Control," 3rd Annual Armed Forces Institute of Regenerative Medicine Conference, Clearwater, Florida, January 17, 2011.
 557. J. Kohn* and A.G. Mikos*, "The Use of Biomaterials Science and Engineering in AFIRM's Research Projects," 3rd Annual Armed Forces Institute of Regenerative Medicine Conference, Clearwater, Florida, January 19, 2011.
 558. P.P. Spicer*, A.M. Henslee, J.D. Kretlow, M. Shi, S. Young, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "*In Situ* Formation of Porous Poly(Methyl Methacrylate) Scaffolds for Space Maintenance of Craniofacial Bone Defects," 3rd Annual Armed Forces Institute of Regenerative Medicine Conference, Clearwater, Florida, January 19, 2011.
 559. A.G. Mikos*, "Bones to Biomaterials and Back Again – 20 Years of Taking Cues from Nature to Engineer Synthetic Polymer Scaffolds," Founders Award Lecture, 35th Annual Meeting of the Society For Biomaterials, Orlando, Florida, April 13, 2011.
 560. R.M. Buchanan*, M.B. Murphy, D.M. Yoon, A.M. Henslee, M. Nair, F.K. Kasper, P.J. Simmons, A.G. Mikos, M. Ferrari, and E. Tasciotti, "Calcium Alginate Porogens for the Development of an Injectable Paste to Treat Traumatic Fractures," 35th Annual Meeting of the Society For Biomaterials, Orlando, Florida, April 14, 2011.
 561. V.V. Meretoja*, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Flow Perfusion Bioreactor for Bone and Cartilage Tissue Engineering," 35th Annual Meeting of the Society For Biomaterials, Orlando, Florida, April 14, 2011.
 562. P.P. Spicer, M. Shi, J.D. Kretlow, S. Young, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos*, "Antibiotic-Releasing Porous Poly(Methylmethacrylate) Space Maintainers for Craniofacial Tissue Engineering," 4th Aegean Conference on Tissue Engineering, Chania, Crete, Greece, June 2, 2011.
 563. R.P. Felix Lanao*, J.G. Wolke, S.C. Leeuwenburgh, A.G. Mikos, and J.A. Jansen, "*In Vitro* and *In Vivo* Controlled Degradation of Injectable Calcium Phosphate Cement Composite," 4th Aegean Conference on Tissue Engineering, Chania, Crete, Greece, June 2, 2011.
 564. E. Burdett, F.K. Kasper*, A.G. Mikos, and J.A. Ludwig, "Development of a 3D Tissue Engineered Cancer Model for Drug Screening," 4th Aegean Conference on Tissue Engineering, Chania, Crete, Greece, June 2, 2011.
 565. P.M. Mountziaris, S.N. Tzouanas, A.G. Mikos, and F.K. Kasper*, "Harnessing Inflammation in Strategies for Bone Tissue Engineering," 4th Aegean Conference on Tissue Engineering, Chania,

- Crete, Greece, June 4, 2011.
566. P.M. Mountziaris, P.R. Kramer, and A.G. Mikos*, "Nanomedicines for Intra-Articular Delivery to the Temporomandibular Joint," 38th Annual Meeting and Exposition of Controlled Release Society, National Harbor, Maryland, August 1, 2011.
 567. P.P. Spicer, M. Shi, J.D. Kretlow, A.M. Henslee, S. Young, N. Demian, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos*, "Antibiotic-Releasing Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Tissue Engineering," 38th Annual Meeting and Exposition of Controlled Release Society, National Harbor, Maryland, August 2, 2011.
 568. C.J. Needham*, S. Chew, A.K. Williams, F.K. Kasper, and A.G. Mikos, "The Effect of Primary Amines, Overall Charge, and Ligand Targeting on the Effectiveness of Poly(Ethylenimine)-Hyaluronic Acid Conjugates as Gene Therapy Agents," Annual BMES Fall Meeting, Hartford, Connecticut, October 13, 2011.
 569. K.E. Hammerick*, F.K. Kasper, and A.G. Mikos, "Nanostructured Scaffolds for Regulating Osteogenic Differentiation of Induced Pluripotent Stem Cells," Annual BMES Fall Meeting, Hartford, Connecticut, October 15, 2011.
 570. A.K. Ekenseair*, K.W.M. Boere, F.K. Kasper, and A.G. Mikos, "A Novel Epoxy-Based, Injectable Hydrogel Scaffold for Tissue Regeneration," Annual AIChE Meeting, Minneapolis, Minnesota, October 17, 2011.
 571. A.K. Ekenseair*, N. Zuiker, F.K. Kasper, and A.G. Mikos, "Optimization of Thermogelling, Injectable Scaffolds for Craniofacial Tissue Regeneration," Annual AIChE Meeting, Minneapolis, Minnesota, October 18, 2011.
 572. R.A. Thibault*, F.K. Kasper, and A.G. Mikos, "Protein and Mineral Composition of an Extracellular Matrix Scaffold for Osteogenic Differentiation of Bone Marrow Stromal Cells," Annual AIChE Meeting, Minneapolis, Minnesota, October 19, 2011.
 573. A.G. Mikos*, "Advancing Scaffold-Based Approaches for Bone Tissue Engineering," Days of Molecular Medicine: Re-Engineering Regenerative Medicine, Hong Kong, November 12, 2011.
 574. T.N. Vo*, A.K. Ekenseair, K.W.M. Boere, F.K. Kasper, and A.G. Mikos, "Injectable PNiPAAm-Based Scaffolds with Tunable LCST for Craniofacial Bone Regeneration," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 12, 2011.
 575. V.V. Meretoja*, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "Enhanced Chondrogenesis in Mesenchymal Stem Cell Cultures Supplemented with Articular Chondrocytes," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 12, 2011.
 576. A.A. Appel*, J. Larson, S. Somo, M.A. Anastasio, P.P. Spicer, F.K. Kasper, A.G. Mikos, and E.M. Brey, "Three Dimensional Quantitative Imaging of Biomaterials in Engineered Tissues with X-ray Phase Contrast," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 12, 2011.
 577. P.P. Spicer*, M. Shi, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Characterization of Poly(Methylmethacrylate)/Gelatin Constructs for Osseous Space Maintenance and Antibiotic Delivery," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 12, 2011.
 578. K. Kim*, J. Lam, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Release from Bilayered Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 13, 2011.
 579. K. Kim*, S. Lu, J. Lam, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Optimizing Encapsulation Densities of Cell Populations in Bilayered Hydrogels for Osteochondral Tissue Engineering," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 13, 2011.
 580. A.M. Henslee*, D.-H. Gwak, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Development of a Biodegradable Bone Cement for Craniofacial Applications," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 13, 2011.
 581. R.L. Dahlin*, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "Testing of a High Throughput Flow Perfusion Bioreactor for Osteochondral Tissue Engineering," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 14, 2011.
 582. D.M. Yoon*, A.M. Henslee, B.Y. Lu, A.A. Arango, L.P. Marruffo, L.J. Seng, T.D. Anver, H. Ather, N. Demian, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Characterizing an Injectable Synthetic Biodegradable Polymer to Mechanically Stabilize Mandibular Defects," TERMIS-North America Annual Conference and Exposition, Houston, Texas, December 14, 2011.

583. A.G. Mikos*, "Advancing Translational Approaches for Craniofacial Reconstruction," 4th Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, February 14, 2012.
584. P.P. Spicer, A.M. Henslee, L.A. Kinard, B.M. Watson, J.D. Kretlow, K. Bevil, L. Katchee, M.E. Wong, A.G. Mikos, and F.K. Kasper*, "Evaluation of Antibiotic-Releasing Porous Polymethylmethacrylate Space Maintainers in an Infected Composite Tissue Defect," 4th Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, February 14, 2012.
585. S.R. Shah, A.M. Henslee, P.P. Spicer, M.E. Wong, F.K. Kasper*, and A.G. Mikos, "Fabrication of Antibiotic-Loaded Biodegradable Polymer Microspheres for Infection Control," 4th Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, February 14, 2012.
586. F.K. Kasper and A.G. Mikos*, "Harnessing Nanotechnology in Approaches for Tissue Engineering," Second International Conference on Nanotechnology at the Bio-Medical Interface – NANOBIO 2012, Kochi, India, February 21, 2012.
587. K. Kim, S. Lu, J. Lam, Y. Tabata, A.G. Mikos*, and F.K. Kasper, "Delivery of Growth Factors and Mesenchymal Stem Cells Using Bilayered Hydrogels for Osteochondral Tissue Regeneration," Second International Conference on Nanotechnology at the Bio-Medical Interface – NANOBIO 2012, Kochi, India, February 21, 2012.
588. A.G. Mikos*, "Basic Concept of Tissue Engineering and Its Possible Applications in Clinical Dentistry," Second International Joint Symposium on Oral and Dental Sciences, Yogyakarta, Indonesia, March 1, 2012.
589. A.G. Mikos*, M.E. Wong, and F.K. Kasper, "Development of Porous Poly(Methyl Methacrylate) Space Maintainers for Craniofacial Tissue Engineering," 9th World Biomaterials Congress, Chengdu, China, June 2, 2012.
590. T.N. Vo*, A.K. Ekenseair, K.W.M. Boere, F.K. Kasper, and A.G. Mikos "Injectable Thermogelling and Chemically Crosslinked Scaffolds with Hydrolysis-Dependent LCST for Craniofacial Bone Regeneration," 9th World Biomaterials Congress, Chengdu, China, June 2, 2012.
591. S. Shah, A.M. Henslee, P.P. Spicer, F.K. Kasper*, and A.G. Mikos, "Fabrication of Antibiotic-Loaded Biodegradable Polymer Microspheres for Infection Control," 9th World Biomaterials Congress, Chengdu, China, June 2, 2012.
592. H. Wang*, L.A. Kinard, Z. Liu, W. Chen, F.K. Kasper, J. Zhou, Q. Lin, C. Duan, Y. Wang, A.G. Mikos, and C. Wang, "Delivery of Induced Pluripotent Stem Cells Derived Cardiomyocytes and bFGF via Injectable, Biodegradable Hydrogels for the Treatment of Myocardial Infarction," 9th World Biomaterials Congress, Chengdu, China, June 4, 2012.
593. A.A. Appel*, J. Larson, S. Somo, P.P. Spicer, F.K. Kasper, A.G. Mikos, M.A. Anastasio, and M.E. Brey, "Three Dimensional Quantitative Imaging of Biomaterials with X-ray Phase Contrast," 9th World Biomaterials Congress, Chengdu, China, June 4, 2012.
594. A.K. Ekenseair*, A.G. Mikos, S.N. Tzouanas, K.W.M. Boere, T.N. Vo, and F.K. Kasper, "Synthesis and Cytocompatibility of Novel Injectable, *In Situ* Hardening Hydrogels Based on Poly(N-Isopropylacrylamide) and Polyamidoamines," 9th World Biomaterials Congress, Chengdu, China, June 5, 2012.
595. P.P. Spicer*, A.M. Henslee, L.A. Kinard, B.M. Watson, J.D. Kretlow, K. Bevil, L. Katchee, J.A. Jansen, M.E. Wong, F.K. Kasper, and A.G. Mikos, "Evaluation of Antibiotic-Releasing Porous Polymethylmethacrylate Space Maintainers in an Infected Composite Tissue Defect," 39th Annual Meeting and Exposition of Controlled Release Society, Québec, Canada, July 18, 2012.
596. P.P. Spicer, A.M. Henslee, A. Nawab, N. Demian, F.K. Kasper*, A.G. Mikos, and M.E. Wong, "Porous Polymethylmethacrylate Fabricated Intraoperatively as a Mandibular Space Maintainer Post Tumor Resection: A Case Series," 3rd World Congress of TERMIS, Vienna, Austria, September 5, 2012.
597. L.A. Kinard*, C. Chu, F.K. Kasper, and A.G. Mikos, "Controlled Delivery of rhBMP-2 from OPF Hydrogel Composites for Bone Tissue Engineering," 3rd World Congress of TERMIS, Vienna, Austria, September 7, 2012.
598. R. Dahlin*, V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Flow Perfusion Co-Culture of Articular Chondrocytes and Mesenchymal Stem Cells," 3rd World Congress of TERMIS, Vienna, Austria, September 7, 2012.
599. K. Kim*, J. Lam, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered Composite Hydrogels for Osteochondral Tissue Repair in a Rabbit Model," 3rd World Congress of TERMIS, Vienna, Austria, September 8, 2012.

600. P.M. Mountziaris*, S.N. Tzouanas, and A.G. Mikos, "The Interplay of Bone-Like Extracellular Matrix and TNF- α Signaling on *In Vitro* MSC Osteogenic Differentiation," Fall Symposium of Society For Biomaterials, New Orleans, Louisiana, October 4, 2012.
601. L. Wang*, F.K. Kasper, and A.G. Mikos, "Fabrication of Cell-Laden Microporous Hydrogels Using Gelatin as a Porogen for Bone Regeneration," Annual BMES Fall Meeting, Atlanta, Georgia, October 25, 2012.
602. L. Wang*, D.M. Yoon, P.P. Spicer, A.M. Henslee, F.K. Kasper, and A.G. Mikos, "Characterization of Porous Polymethylmethacrylate for Craniofacial Reconstruction," Annual BMES Fall Meeting, Atlanta, Georgia, October 26, 2012.
603. G. Lalwani*, B. Farshid, A.M. Henslee, A.G. Mikos, and B. Sitharaman, "Inorganic and Carbon Nanoparticle-Reinforced Poly(Propylene Fumarate) Nanocomposites for Bone Tissue Engineering," Annual BMES Fall Meeting, Atlanta, Georgia, October 26, 2012.
604. L. Wang*, F.K. Kasper, and A.G. Mikos, "Cell-Laden Microporous Hydrogels Using Carboxymethylcellulose as a Porogen for Cartilage Regeneration," Annual BMES Fall Meeting, Atlanta, Georgia, October 26, 2012.
605. J.G. Gershovich, F.K. Kasper*, and A.G. Mikos, "Accelerated Osteogenesis of Human Mesenchymal Stem Cells in Co-Culture with Endothelial Cells in 3D-Scaffolds," Annual BMES Fall Meeting, Atlanta, Georgia, October 27, 2012.
606. V.V. Meretoja*, R.L. Dahlin, F.K. Kasper, and A.G. Mikos, "3D Co-Cultures of Chondrocytes and MSCs are Resistant to Hypertrophy in Normoxia and Hypoxia," Annual BMES Fall Meeting, Atlanta, Georgia, October 27, 2012.
607. A.K. Ekenseair*, K.W.M. Boere, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Swelling and Mechanical Behavior of Novel Thermally and Chemically Gelling Injectable Hydrogels," Annual BMES Fall Meeting, Atlanta, Georgia, October 27, 2012.
608. A.K. Ekenseair*, S.N. Tzouanas, K.W.M. Boere, T.N. Vo, F.K. Kasper, and A.G. Mikos, "Evaluation of Polyamidoamine-Based Dual-Hardening, Injectable Hydrogels for Tissue Engineering," Annual AIChE Meeting, Pittsburgh, Pennsylvania, November 1, 2012.
609. A.G. Mikos*, A.K. Ekenseair, T.N. Vo, S.N. Tzouanas, and F.K. Kasper, "Synthetic Polymer Scaffolds for Bone Tissue Engineering," 9th Society of Polymer Science Japan International Polymer Conference, Kobe, Japan, December 13, 2012.
610. A.G. Mikos*, "Biomaterials for Tissue Engineering," 6th Annual Translational to Clinical (T2C) Regenerative Medicine Wound Care Conference, Ohio State University, Columbus, Ohio, March 15, 2013.
611. A.G. Mikos*, "Advancing Biomaterial Strategies for Bone Tissue Engineering," 17th Annual Hilton Head Workshop, Hilton Head Island, South Carolina, March 21, 2013.
612. M.J. Yaszemski* and A.G. Mikos, "Porous Polymers in Tissue Engineering and Regenerative Medicine Applications," National ACS Meeting, New Orleans, Louisiana, April 9, 2013.
613. A.G. Mikos*, F.K. Kasper, and M.E. Wong, "Biomaterials Strategies for Craniofacial Tissue Engineering," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
614. C.J. Needham*, S. Shah, F.K. Kasper, and A.G. Mikos, "Modulation of Polymer/DNA Release from Poly(DL-Lactic-co-Glycolic Acid) Microspheres through Poly(Ethylenimine) Modification and Loading Concentration," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
615. E.L.S. Fong*, S.E. Lamhamedi-Cherradi, E. Burdett, V. Ramamoorthy, A.J. Lazar, F.K. Kasper, M.C. Farach-Carson, D. Vishwamitra, E.G. Demicco, B.A. Menegaz, H.M. Amin, J.A. Ludwig, and A.G. Mikos, "Engineering a Three-Dimensional *In Vitro* Model of Bone Sarcoma for Drug-Testing," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
616. T.N. Vo*, A.K. Ekenseair, P.P. Spicer, B.M. Watson, F.K. Kasper, and A.G. Mikos, "Biocompatibility Evaluation of Poly(N-Isopropylacrylamide)-Based Hydrogels for Craniofacial Bone Regeneration," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
617. E.J. Levorson*, O. Hu, F.K. Kasper, and A.G. Mikos, "Devitalized Cell Derived Polymer/Extracellular Matrix Composite Scaffolds for Cartilage Regeneration," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.

618. S.R. Shah*, S. Shah, N. Raindel, A.M. Henslee, P.P. Spicer, F.K. Kasper, and A.G. Mikos, "Antibiotic-Loaded Porous Poly(Methyl Methacrylate) for Space Maintenance and Local Drug Delivery," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
619. A.M. Tatar*, F.K. Kasper, and A.G. Mikos, "Longevity of Implant-Associated Infectious Biofilms," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 11, 2013.
620. R.L. Dahlin*, M. Ni, V.V. Meretoja, F.K. Kasper, and A.G. Mikos, "Dose Response to TGF- β 3 of Co-Cultured Chondrocytes and Mesenchymal Stem Cells on Porous Polymer Scaffolds," 37th Annual Meeting of the Society For Biomaterials, Boston, Massachusetts, April 13, 2013.
621. A.G. Mikos*, "Three-Dimensional Cell Culture for Tissue Engineering and Drug Testing," Advanced Models of Imaging-Based Drug Screening, Texas Screening Alliance for Cancer Therapeutics and John S. Dunn Gulf Coast Consortium for Chemical Genomics Conference, Houston, Texas, May 13, 2013.
622. A.G. Mikos*, "Synthetic Polymer Scaffolds for Tissue Engineering," 30th Annual Meeting of the Canadian Biomaterials Society, Ottawa, Ontario, May 30, 2013.
623. A.G. Mikos*, "Biomaterials for Regenerative Medicine," International Conference on Regenerative Biomedical Materials, Wuhan, China, June 3, 2013.
624. H. Wang*, L.A. Kinard, L. Wang, J. Liu, Y. Wang, Z. Liu, F.K. Kasper, A.G. Mikos, and C. Wang, "OPF Hydrogel Prevents Adverse Remodeling after Myocardial Infarction by Inhibiting Serum Response Factor Mediated Myofibroblast Transformation in Cardiac Fibroblasts and its Application in Heart Regeneration," International Conference on Regenerative Biomedical Materials, Wuhan, China, June 4, 2013.
625. E. Levorson and A.G. Mikos*, "Mesenchymal Stem Cell Co-Cultures for Tissue Engineering Applications," Mesenchymal Stem Cell (MSC) Conference, Cleveland, Ohio, August 20, 2013.
626. V.V. Meretoja*, R.L. Dahlin, S. Wright, M. Ni, F.K. Kasper, and A.G. Mikos, "Effect of Chondrocyte Dedifferentiation on 3D Co-cultures with Mesenchymal Stem Cells," Annual BMES Fall Meeting, Seattle, Washington, September 26, 2013.
627. J. Lam*, S. Lu, A.G. Mikos, and F.K. Kasper, "Chondrogenic and Osteogenic Pre-Differentiation of Mesenchymal Stem Cells for Osteochondral Tissue Engineering Using Bilayered Hydrogels," Annual BMES Fall Meeting, Seattle, Washington, September 26, 2013.
628. G. Lalwani*, A.M. Henslee, B. Farshid, L. Lin, F.K. Kasper, Y.-X. Qin, A.G. Mikos, and B. Sitharaman, "Two Dimensional Carbon and Inorganic Nanostructures Reinforced Biodegradable Polymeric Nanocomposites for Bone Tissue Engineering," Annual BMES Fall Meeting, Seattle, Washington, September 27, 2013.
629. M. Santoro*, S.-E. Lamhamedi-Cherradi, F.K. Kasper, J.A. Ludwig, and A. G. Mikos, "In Vitro Tumor Model Generated Using a Flow Perfusion Bioreactor," Annual BMES Fall Meeting, Seattle, Washington, September 28, 2013.
630. A.G. Mikos*, M.E. Wong, and F.K. Kasper, "Leveraging Biomaterials in Translational Strategies for Craniofacial Bone Repair," TERMIS-Asia Pacific Annual Conference, Shanghai-Wuzhen, China, October 25, 2013.
631. A.K. Ekenseair*, S.N. Tzouanas, T.N. Vo, P.P. Spicer, B.M. Watson, P.M. Mountziaris, F.K. Kasper, and A.G. Mikos, "Spontaneous Mineralization of Hydrophobic Hydrogels for Craniofacial Bone Tissue Regeneration," Annual AIChE Meeting, San Francisco, California, November 4, 2013.
632. B.M. Watson*, F.K. Kasper, P.S. Engel, and A.G. Mikos, "Synthesis and Characterization of Novel, In Situ Cross-Linkable, Biodegradable, Thermoresponsive Hydrogels for Bone Tissue Engineering," Annual AIChE Meeting, San Francisco, California, November 6, 2013.
633. L.A. Kinard*, F.K. Kasper, and A.G. Mikos, "Oligo(Poly(Ethylene Glycol) Fumarate) as a Synthetic Hydrogel Carrier for Demineralized Bone Matrix," TERMIS-Americas Annual Conference and Exposition, Atlanta, Georgia, November 11, 2013.
634. R.L. Dahlin*, V.V. Meretoja, M. Ni, F.K. Kasper, and A.G. Mikos, "Enhancing the Chondrogenic Phenotype of Articular Chondrocytes in Flow Perfusion," TERMIS-Americas Annual Conference and Exposition, Atlanta, Georgia, November 11, 2013.
635. J. Lam*, R.L. Dahlin, S. Lu, Y. Tabata, A.G. Mikos, and F.K. Kasper, "Articular Chondrocyte and Mesenchymal Stem Cell Co-Cultures in Hydrogels for Osteochondral Tissue Engineering," TERMIS-Americas Annual Conference and Exposition, Atlanta, Georgia, November 11, 2013.

636. E.L.S. Fong*, M. Martinez, D.A. Harrington, A.G. Mikos, N.M. Navone, and M.C. Farach-Carson, "Developing a Clinically Relevant *In Vitro* Model of Bone Metastatic Prostate Cancer," TERMIS-Americas Annual Conference and Exposition, Atlanta, Georgia, November 13, 2013.
637. A.G. Mikos* and F.K. Kasper, "Biomaterials for Tissue Engineering," International Conference on Biomedical Engineering, Singapore, December 4, 2013.
638. A.G. Mikos*, M.E. Wong, and F.K. Kasper, "Leveraging Biomaterials in Translational Strategies for Craniofacial Bone Repair," International Conference on Biomedical Engineering, Singapore, December 4, 2013.
639. A.G. Mikos*, "Biomaterials for Regenerative Medicine," 13th Congress of the Japanese Society for Regenerative Medicine, Kyoto, Japan, March 5, 2014.
640. T.N. Vo, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos*, "Injectable, Physically and Chemically Forming Hydrogels with Hydrolysis-Dependent Thermosensitivity," ACS Award in Applied Polymer Science: Symposium in Honor of Nicholas A. Peppas, National ACS Meeting, Dallas, Texas, March 18, 2014.
641. T.N. Vo*, T.-L. Roh, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Promoting Mineralization and Mesenchymal Stem Cell Differentiation in Injectable, Physically and Chemically Gelling Hydrogels for Craniofacial Tissue Engineering," 38th Annual Meeting of the Society For Biomaterials, Denver, Colorado, April 16, 2014.
642. S.N. Tzouanas*, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos, "Mesenchymal Stem Cell and Gelatin Microparticle Encapsulation in Thermally and Chemically Gelling Injectable Hydrogels for Tissue Engineering," 38th Annual Meeting of the Society For Biomaterials, Denver, Colorado, April 17, 2014.
643. A.M. Tatar*, S.R. Shah, D.S. Puperi, B.M. Watson, K.J. Grande-Allen, M.E. Wong, A.G. Mikos, and F.K. Kasper, "Mitigation of Biofilm Formation with an Elastomeric Barrier Membrane System," 38th Annual Meeting of the Society For Biomaterials, Denver, Colorado, April 18, 2014.
644. E.J. Lee*, J. Zimak, M.R. Diehl, J.J. Tabor, and A.G. Mikos, "An Optogenetic Approach to Bone Tissue Engineering," 5th Aegean Conference on Tissue Engineering, Kos, Greece, June 22, 2014.
645. T.N. Vo, T.T. Roh, A.K. Ekenseair, F.K. Kasper, and A.G. Mikos*, "Development of Injectable, Physically and Chemically Forming, Stem Cell-Laden Hydrogel Composites for Bone Tissue Engineering," 5th Aegean Conference on Tissue Engineering, Kos, Greece, June 24, 2014.
646. A.G. Mikos*, "Tissue Engineering: Challenges and Opportunities," International Conference on Tissue Engineering and Regenerative Medicine, Pretoria, South Africa, August 27, 2014.
647. A.G. Mikos*, T.N. Vo, and B.M. Watson, "Injectable, Dual Gelling Hydrogels for Stem Cell Delivery for Craniofacial Tissue Engineering," 3rd Symposium on Innovative Polymers for Controlled Delivery, Suzhou, China, September 18, 2014.
648. A.G. Mikos*, "Biomaterials for Tissue Engineering," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
649. J. Lam*, S. Lu, E.J. Lee, J.E. Trachtenberg, V.V. Meretoja, R.L. Dahlin, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, F.K. Kasper, and A.G. Mikos, "Osteochondral Defect Repair Using Bilayered Hydrogels Encapsulating both Chondrogenically and Osteogenically Pre-differentiated Mesenchymal Stem Cells in a Rabbit Model," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
650. E.J. Lee*, J. Zimak, M.R. Diehl, J.J. Tabor, and A.G. Mikos, "An Optogenetic Approach to Bone Tissue Engineering," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
651. C.E. Livingston*, A.M. Tatar*, and A.G. Mikos, "'Smart' Bone Cement: Synthesis and Characterization of Metronidazole Acrylate," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
652. S. Lu*, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J.J.J.P. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered, Biodegradable Hydrogel Composites for Spatially Guided Osteochondral Tissue Repair," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
653. T.T. Roh*, T.N. Vo, and A.G. Mikos, "Effect of Gelatin Incorporation on the Mineralization and Osteogenesis of Stem Cell Laden Hydrogels," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
654. M. Santoro*, S.E. Lamhamedi-Cherradi, B.A. Menegaz, V. Ramamoorthy, F.K. Kasper, J.A. Ludwig, and A.G. Mikos, "Effect of Variable Flow Perfusion on an *In Vitro* Tumor Model for Ewing Sarcoma,"

- Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
655. S. Shah*, M. Santoro, and A.G. Mikos, "Clindamycin as an Osteogenic and Antimicrobial Agent," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
 656. A.M. Tatar*, J. Lam, and A.G. Mikos, "A Novel Elastomer/Gelatin Microparticle Composite Material," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
 657. J.E. Trachtenberg*, P.M. Mountziaris, J.S. Miller, M. Wettergreen, F.K. Kasper, and A.G. Mikos, "Open-Source Three-Dimensional Printing of Biodegradable Polymer Scaffolds for Tissue Engineering," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
 658. E.L.S. Fong*, M. Martinez, J. Yang, A.G. Mikos, N.M. Navone, D.A. Harrington, and M.C. Farach-Carson, "Hydrogel-Based 3D Model of Patient-Derived Prostate Xenograft Tumors Suitable for Drug Screening," Inaugural Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, October 3, 2014.
 659. A.G. Mikos*, "Biomaterials for Tissue Engineering," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 14, 2014.
 660. A.G. Mikos*, "Education and Training in Tissue Engineering: The Rice Experience," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 14, 2014.
 661. J. Lam*, S. Lu, E.J. Lee, J.E. Trachtenberg, V.V. Meretoja, R.L. Dahlin, J. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Osteochondral Defect Repair Using Bilayered Hydrogels Encapsulating both Chondrogenically and Osteogenically Pre-Differentiated Mesenchymal Stem Cells in a Rabbit Model," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 14, 2014.
 662. E.L.S. Fong*, D.A. Harrington, A.G. Mikos, and M.C. Farach-Carson, "Engineering the Bone Metastatic Prostate Cancer Microenvironment Using a Three-Dimensional Hyaluronan-Based Hydrogel System," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 14, 2014.
 663. M. Santoro*, S. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Effect of Flow Conditions in a 3D Tumor Model Generated Using a Flow Perfusion Bioreactor," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 14, 2014.
 664. S. Lu*, J. Lam, J.E. Trachtenberg, E.J. Lee, H. Seyednejad, J. van den Beucken, Y. Tabata, M.E. Wong, J.A. Jansen, A.G. Mikos, and F.K. Kasper, "Dual Growth Factor Delivery from Bilayered Hydrogel Composites for Spatially-Guided Osteochondral Tissue Repair *In Vivo*," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 16, 2014.
 665. T.N. Vo*, S.R. Shah, S. Lu, E.J. Lee, A.M. Tatar*, and A.G. Mikos, "Mineralization and Bone Regeneration of Injectable, Dual-Gelling Hydrogel-Cell Constructs," 39th Annual Meeting of the Society For Biomaterials, Charlotte, North Carolina, April 17, 2015.
 666. A.G. Mikos*, "Challenges in Maxillofacial Reconstructive Surgery," American Academy of Craniomaxillofacial Surgeons Annual Meeting, Houston, Texas, May 29, 2015.
 667. J. Lam*, E. Clark, E.J. Lee, E.L.S. Fong, S. Lu, and A.G. Mikos, "Evaluation of Polyelectrolyte Hydrogels Incorporating Poly(L-Lysine) as a Stimulant of Chondrogenic Differentiation for Cartilage Tissue Engineering," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.
 668. S. Lu*, J. Lam, and A.G. Mikos, "Osteochondral Tissue Repair Using a Bilayered Hydrogel Composite Delivering Spatially-Guided Dual Growth Factors," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.
 669. M. Santoro*, S.E. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Effect of Flow Conditions in a 3D Tumor Model Generated Using a Flow Perfusion Bioreactor," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.
 670. S.R. Shah*, A.M. Tatar*, J. Lam, S. Lu, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Clindamycin-Releasing Porous Poly(Methylmethacrylate) Space Maintainers for Prevention of Mandibular Infection," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.

671. A.M. Tataro*, N.D. Albert, S.R. Shah, D.P. Kontoyiannis, and A.G. Mikos, "Elastomer/Gelatin Composite Membranes for Treatment of Cutaneous Mold Infection," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.
672. T.N. Vo*, T.T. Roh, S.R. Shah, S. Lu, E.J. Lee, A.M. Tataro, and A.G. Mikos, "*In Vitro* and *In Vivo* Mineralization and Osteogenesis of Injectable Stem Cell Laden Hydrogels," Biomaterials Day at Rice University, Houston, Texas, June 1, 2015.
673. M. Santoro*, S.E. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Flow Perfusion Effects on Three-Dimensional Culture and Drug Sensitivity of Ewing Sarcoma," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
674. A.M. Tataro*, S.R. Shah, J. Lam, N. Demian, T. Ho, J. Shum, M.E. Wong, and A.G. Mikos, "Using the Body to Regrow the Body: *In Vivo* Bioreactors for Craniofacial Tissue Engineering," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
675. J. Lam*, E. Clark, E.J. Lee, E.L.S. Fong, S. Lu, and A.G. Mikos, "Evaluation of Polyelectrolyte Hydrogels Incorporating Poly(L-Lysine) as a Stimulant of Chondrogenic Differentiation for Cartilage Tissue Engineering," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
676. S. Lu*, J. Lam, and A.G. Mikos, "Osteochondral Tissue Repair Using a Bilayered Hydrogel Composite Delivering Spatially-Guided Dual Growth Factors," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
677. S.R. Shah*, A.M. Tataro, J. Lam, S. Lu, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Clindamycin-Releasing Porous Poly(Methylmethacrylate) Space Maintainers for Prevention of Mandibular Infection," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
678. T.N. Vo*, T. Roh, S.R. Shah, S. Lu, E.J. Lee, A.M. Tataro, and A.G. Mikos, "*In Vitro* and *In Vivo* Mineralization and Osteogenesis of Injectable Stem Cell Laden Hydrogels," 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, June 2, 2015.
679. J. Lam, S. Lu, and A.G. Mikos*, "Delivering Tissue-Specific Mesenchymal Stem Cells or Growth Factors from Bilayered Hydrogels for Osteochondral Tissue Repair in a Rabbit Model," Second International Conference on Regenerative Biomedical Materials, Wuhan, China, June 5, 2015.
680. S.R. Shah*, A.M. Tataro, J. Lam, S. Lu, G.N. Bennett, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Microparticle-Based Delivery of Clindamycin for Prevention of Mandibular Infection," 42nd Annual Meeting and Exposition of Controlled Release Society, Edinburgh, Scotland, July 27, 2015.
681. M. Santoro*, S. Lamhamedi-Cherradi, B.A. Menegaz, J.A. Ludwig, and A.G. Mikos, "Fluid Shear Stress Effects on Three-Dimensional Culture and Drug Sensitivity of Ewing Sarcoma," 4th World Congress of TERMIS, Boston, Massachusetts, September 9, 2015.
682. M. Santoro, B. Smith*, E. Grosfeld, J.J.J.P. van den Beucken, J.A. Jansen, and A.G. Mikos, "Development of Injectable and Resorbable Calcium Phosphate Cements Incorporating Carbohydrate Porogens for Designer Degradability," 4th World Congress of TERMIS, Boston, Massachusetts, September 9, 2015.
683. T.N. Vo*, T.T. Roh, and A.G. Mikos, "Injectable, Dual-Gelling Hydrogels with Hydrophobicity-Dependent Mineralization for Directing Osteogenesis *In Vitro*," 4th World Congress of TERMIS, Boston, Massachusetts, September 9, 2015.
684. A.M. Tataro*, S.R. Shah, J. Lam, N. Demian, T. Ho, J. Shum, J.J.J.P. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Reconstruction of Large Mandibular Defects Using Tissue-Engineered Autologous Free Tissue Flaps Generated from *In Vivo* Bioreactors in an Ovine Model," 4th World Congress of TERMIS, Boston, Massachusetts, September 10, 2015.
685. A.M. Tataro*, N.D. Albert, S.R. Shah, D.P. Kontoyiannis, and A.G. Mikos, "Composite Membranes for Treatment of Cutaneous Mold Infection," 4th World Congress of TERMIS, Boston, Massachusetts, September 11, 2015.
686. A.G. Mikos*, "Development of Porous Space Maintainers for Craniofacial Tissue Engineering," Surfaces in Biomaterials, Scottsdale, Arizona, September 23, 2015.
687. T.N. Vo, B.M. Watson, and A.G. Mikos*, "Injectable Thermosensitive Hydrogels with Tunable Mineralization for Minimally Invasive Bone Tissue Engineering," International Bone-Tissue-Engineering Congress, Stuttgart, Germany, October 8, 2015.

688. A.G. Mikos*, "Biomaterials for Tissue Engineering," Seventh International Bioengineering Congress, Izmir, Turkey, November 21, 2015.
689. A.G. Mikos*, "Biomaterials for Tissue Engineering," Texas Academy of Medicine, Engineering, Science and Technology Annual Conference, Dallas, Texas, January 22, 2016.
690. A.G. Mikos*, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," International Center for Materials Nanoarchitectonics (MANA) International Symposium, Tsukuba, Japan, March 11, 2016.
691. S. Shah*, A.M. Tatar, M. Santoro, A.M. Henslee, R.E. Guldberg, J.C. Wenke, J.J.J.P. van den Beucken, J.A. Jansen, S.-E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Critical Roles of Clindamycin on Human Mesenchymal Stem Cells *In Vitro* and *In Vivo* Bone Regeneration," 10th World Biomaterials Congress, Montreal, Canada, May 18, 2016.
692. A.G. Mikos*, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," 10th World Biomaterials Congress, Montreal, Canada, May 20, 2016.
693. A.M. Tatar*, E. Watson, T. Satish, D.P. Kontoyiannis, and A.G. Mikos, "Poly(Diol Fumarates); A New Class of Tunable Antimicrobial Polymers," 10th World Biomaterials Congress, Montreal, Canada, May 20, 2016.
694. J.E. Trachtenberg*, J.K. Placone, B.T. Smith, C.M. Piard, M. Santoro, D.W. Scott, J.P. Fisher, and A.G. Mikos, "Extrusion-Based Printing of Poly(Propylene Fumarate) for Osteochondral Tissue Engineering," 10th World Biomaterials Congress, Montreal, Canada, May 22, 2016.
695. S.R. Shah*, B.T. Smith, A.M. Tatar, E.R. Molina, E.J. Lee, R.E. Guldberg, G.N. Bennett, J.C. Wenke, and A.G. Mikos, "Effects of Antimicrobial Treatment on the Induction of an Osteogenic Membrane in an Infected Bone Defect," Texas Biomaterials Day at University of Texas at San Antonio, San Antonio, Texas, June 3, 2016.
696. A.G. Mikos*, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," Second International Symposium on Frontiers in Biomaterial Science, Leipzig, Germany, June 24, 2016.
697. A.G. Mikos*, "Biomaterials for Tissue Engineering," 13th International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, July 5, 2016.
698. A.G. Mikos*, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," 13th International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, July 7, 2016.
699. A.G. Mikos*, "Biomaterials for Tissue Engineering," Surfaces in Biomaterials, Minneapolis, Minnesota, October 5, 2016.
700. A.G. Mikos*, "Biomaterials for Tissue Engineering," 18th Annual Meeting of North Carolina Tissue Engineering and Regenerative Medicine Society, Chapel Hill, North Carolina, October 27, 2016.
701. A.G. Mikos*, "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," Symposium in Honor of Nicholas A. Peppas: 40 Years of Impact at the Frontiers of Science and Engineering, Annual AIChE Meeting, San Francisco, California, November 15, 2016.
702. E.J. Lee*, E.J. Gomez, T.C. Piepergerdes, J. Suh, J.J. Tabor, and A.G. Mikos, "Tunable Delivery of Bone Morphogenetic Protein-2 via a Light-Activatable Adeno-Associated Virus Platform," TERMIS-Americas Annual Conference and Exposition, San Diego, California, December 12, 2016.
703. A.M. Tatar*, E. Watson, N.D. Albert, D.P. Kontoyiannis, and A.G. Mikos, "Biodegradable Unsaturated Polyesters Synthesized from Antifungal Monomers," TERMIS-Americas Annual Conference and Exposition, San Diego, California, December 12, 2016.
704. S.R. Shah, B.T. Smith, A.M. Tatar, E.R. Molina, E.J. Lee*, R.E. Guldberg, G.N. Bennett, J.C. Wenke, and A.G. Mikos, "Antibiotic-Releasing Porous Space Maintainers Mitigate Infection and Restore the Osteogenic Potential of Induced Membranes in Infected Bone Defects," TERMIS-Americas Annual Conference and Exposition, San Diego, California, December 12, 2016.
705. A.M. Tatar*, S.R. Shah, E. Watson, B.T. Smith, N. Demian, I.A. Hanna, J.C. Melville, J. Shum, T. Ho, J.J. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Ovine Model for Generation of Tissue-Engineered Vascularized Bone of Large Volume and Custom Geometry," TERMIS-Americas Annual Conference and Exposition, San Diego, California, December 12, 2016.
706. A.G. Mikos*, "Biomaterials for Tissue Engineering," Shu Chien Achievement Award Lecture, Cellular and Molecular Bioengineering Conference, Kohala Coast, Hawaii, January 5, 2017.
707. A.G. Mikos*, "Biomaterials for Tissue Engineering," Mayo Clinic Symposium on Regenerative Medicine and Surgery, Scottsdale, Arizona, February 16, 2017.

708. A.G. Mikos*, "Tissue Engineering: Convergence of Sciences for Human Health," Induction Lecture, Academy of Athens, Athens, Greece, March 14, 2017.
709. J.L. Guo*, Y.S. Kim, P.S. Engel, and A.G. Mikos, "Thiolated Poly(Lactic-co-Glycolic Acid) Macromers for Biomolecule Conjugation by Alkyne-Azide Click Chemistry," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
710. Y. Kim*, J.L. Guo, J. Lam, and A.G. Mikos, "Preparation of Chondroitin Sulfate Crosslinked, Thermally Responsive Hydrogel for Osteochondral Tissue Regeneration," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
711. E.J. Lee*, T.C. Piepergerdes, S.M. Vasquez, E.J. Gomez, J. Suh, J.J. Tabor, and A.G. Mikos, "Tunable Delivery of Bone Morphogenetic Protein-2 (BMP-2) Via a Light-Activatable Adeno-Associated Virus (AAV) Platform," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
712. E.R. Molina*, T. Satish, B.A. Menegaz, S.E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Electrospun Three-Dimensional Models of Osteosarcoma Tumor Microenvironments," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
713. B.T. Smith*, A. Lu, E. Watson, and A.G. Mikos, "Incorporation of Synthetic Polymers and Carbohydrates for the Development of Injectable Calcium Phosphate Cements," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
714. E. Watson*, C. Kim, A.M. Tatara, S. Yang, and A.G. Mikos, "A Tunable Polymer System for Tissue Engineering," 3rd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, Houston, Texas, April 21, 2017.
715. E. Watson, S. Yang, S.R. Shah, and A.G. Mikos*, "A Mechanically-Tunable Polymer System for Drug Delivery in Tissue Engineering," 6th Aegean Conference on Tissue Engineering in Conjunction with 3rd International Conference on Regenerative Biomedical Materials, Heraklion, Crete, Greece, June 16, 2017.
716. A.M. Tatara, M.E. Wong, and A.G. Mikos*, "Advances in the *In Vivo* Bioreactor for Craniofacial Reconstruction," 6th Aegean Conference on Tissue Engineering in Conjunction with 3rd International Conference on Regenerative Biomedical Materials, Heraklion, Crete, Greece, June 18, 2017.
717. A.G. Mikos*, J.P. Fisher, J.A. Jansen, and P.C. Johnson, "How to Give an Impactful Presentation," TERMIS-Europe Meeting, Davos, Switzerland, June 28, 2017.
718. A.G. Mikos*, "Development of a Tissue-Engineered Tumor Model," 14th International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, July 7, 2017.
719. A.G. Mikos*, "Development of a Tissue-Engineered Tumor Model," 2nd International Conference on Tissue Engineering and Regenerative Medicine, Vanderbijlpark, South Africa, July 28, 2017.
720. A.G. Mikos*, "Biomaterials for Tissue Engineering," 28th Annual Conference of European Society for Biomaterials, Athens, Greece, September 5, 2017.
721. A.M. Tatara and A.G. Mikos*, "Considerations for Biomaterials Development for Regenerative Medicine Applications," 28th Annual Conference of European Society for Biomaterials, Athens, Greece, September 5, 2017.
722. T. Satish*, E.R. Molina, B.A. Menegaz, S.E. Lamhamedi-Cherradi, J.A. Ludwig, and A.G. Mikos, "Electrospun 3D Poly(ϵ -caprolactone) Scaffolds for Osteosarcoma Behavior Modeling," Annual BMES Meeting, Phoenix, Arizona, October 12, 2017.
723. A.G. Mikos*, "Biomaterials for Tissue Engineering and Regenerative Medicine," Xiang Shan Scientific Conference on Biomaterials and Regenerative Medicine, Beijing, China, October 15, 2017.
724. A.G. Mikos*, "Biomaterials for Tissue Engineering and Regenerative Medicine," Fall Meeting of Korean Society for Biomaterials, Seoul, Korea, October 19, 2017.
725. A.G. Mikos*, "Biomaterials for Tissue Engineering," James E. Bailey Award Lecture, Annual AIChE Meeting, Minneapolis, Minnesota, October 31, 2017.
726. J.L. Guo*, Y. Kim, P.S. Engel, and A.G. Mikos, "Thiolated Poly(Lactic-co-Glycolic Acid) Macromers for Biomolecule Conjugation by Alkyne-Azide Click Chemistry," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 3, 2017.
727. E.R. Molina*, T. Satish, B.A. Menegaz, S. Lamhamedi-Cherradi, J.A. Ludwig, IV, and A.G. Mikos, "Electrospun Three Dimensional Models of Osteosarcoma Tumor Microenvironments," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 3, 2017.

728. M. Smoak*, A. Kishan, E. Cosgriff-Hernandez, and A.G. Mikos, "Processing Tissue-Specific Extracellular Matrix for Use as Electrospun Meshes," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 3, 2017.
729. E. Watson*, C. Kim, A.M. Tatara, and A.G. Mikos, "A Tunable Poly(Diol Diacid) System for Drug Delivery and Tissue Engineering Applications," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 4, 2017.
730. Y. Kim*, J.L. Guo, J. Lam, and A.G. Mikos, "Preparation of Chondroitin Sulfate Crosslinked, Thermally Responsive Hydrogels for Osteochondral Tissue Regeneration," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 5, 2017.
731. A.M. Tatara, E. Watson*, N.D. Albert, A.G. Mikos, and D.P. Kontoyiannis, "Poly(Diol Fumarate) Microparticles Restore Wound Healing in a Neutropenic Murine Model of Cutaneous Fungal Infection," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 5, 2017.
732. S. Bittner*, B. Smith, A. Melchiorri, and A.G. Mikos, "Fabrication of 3D-Printed, Bidirectional Growth Factor Gradient Scaffolds for Osteochondral Tissue Repair," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 6, 2017.
733. T.C. Piepergerdes*, A.M. Tatara, S.R. Shah, E. Watson, B.T. Smith, G.L. Koons, N. Demian, J. Melville, I. Hanna, T. Ho, J. Shum, J.J. van den Beucken, J.A. Jansen, M.E. Wong, and A.G. Mikos, "Osteogenic, Chondrogenic, and Angiogenic Gene Expression of Tissue-Engineered Flaps Grown in an *In Vivo* Ovine Bioreactor," TERMIS-Americas Annual Conference and Exhibition, Charlotte, North Carolina, December 6, 2017.
734. J. Guo*, Y. Kim, P. Engel, and A.G. Mikos, "Biodegradable, "Clickable" Poly(Glycolic Acid) Macromers for Hydrogel Functionalization," 41st Annual Meeting of the Society For Biomaterials, Atlanta, Georgia, April 12, 2018.
735. A.M. Tatara, N.D. Albert, E. Watson, A.G. Mikos, and D.P. Kontoyiannis*, "Treatment of Cutaneous Aspergillosis with Voriconazole-Loaded Poly(Diol Fumarate) Microparticles," 20th Biennial Congress of International Immunocompromised Host Society, Athens, Greece, June 18, 2018.
736. A.G. Mikos*, A.M. Tatara, and S.R. Shah, "Tissue Engineering and Infectious Diseases," 20th Biennial Congress of International Immunocompromised Host Society, Athens, Greece, June 19, 2018.
737. J. Yang*, A.G. Mikos, G. Koons, E. Watson, and E. Molina, "CaP Coated Biodegradable Mg Drug Loaded Bone Tissue Engineering Scaffold," 5th World Congress of TERMIS, Kyoto, Japan, September 5, 2018.
738. A.G. Mikos*, M.E. Wong, and A.M. Tatara, "*In Vivo* Bioreactors for Craniofacial Tissue Regeneration," 5th World Congress of TERMIS, Kyoto, Japan, September 6, 2018.
739. A.G. Mikos*, "Biomaterials for Tissue Engineering and Regenerative Medicine," 5th World Congress of TERMIS, Kyoto, Japan, September 7, 2018.
740. Y. Kim, J.L. Guo, J. Lam, and A.G. Mikos*, "Thermally Responsive and Tissue Adhesive Hydrogel for Osteochondral Tissue Regeneration," 5th World Congress of TERMIS, Kyoto, Japan, September 7, 2018.
741. L. Diaz-Gomez*, S. Bittner, B. Smith, A. Melchiorri, and A.G. Mikos, "3D Printing of Horizontal Gradient Scaffolds for Bone Regeneration," 29th Annual Congress of European Society for Biomaterials, Maastricht, The Netherlands, September 12, 2018.
742. I. Lodoso-Torrecilla*, N. van Gestel, E.-C. Grosfeld, L. Diaz-Gomez, F. Stumpel, K. Laperre, J.G.C. Wolke, B.T. Smith, J.J. Arts, A.G. Mikos, S. Hofmann, J.A. Jansen, and J.J.J.P. van den Beucken, "Multimodal Porogen Platforms for Calcium Phosphate Cements," 29th Annual Congress of European Society for Biomaterials, Maastricht, The Netherlands, September 13, 2018.
743. A.G. Mikos*, "Biomaterials for Tissue Engineering and Regenerative Medicine," 1st International Conference on Nanotechnologies and Bionanoscience, Heraklion, Crete, Greece, September 27, 2018.
744. M. Smoak*, A. Han, A. Kishan, E. Cosgriff-Hernandez, and A.G. Mikos, "Electrospun Decellularized Extracellular Matrix Scaffolds for Myogenic Differentiation," Annual BMES Meeting, Atlanta, Georgia, October 18, 2018.
745. S. Bittner*, B. Smith, L. Diaz-Gomez, A. Melchiorri, J.P. Fisher, and A.G. Mikos, "Fabrication and Mechanical Characterization of 3D Printed Multilayered Heterogeneous Scaffolds," Annual BMES Meeting, Atlanta, Georgia, October 19, 2018.

746. H.A. Pearce*, Y.S. Kim, J.L. Guo, and A.G. Mikos, "Mimicking Mesenchymal Stem Cell Condensation to Promote Articular Cartilage Regeneration," Annual BMES Meeting, Atlanta, Georgia, October 19, 2018.
747. A.G. Mikos*, "Biomaterials for Tissue Engineering and Regenerative Medicine," 18th International Conference on Bioinformatics and Bioengineering, Taichung, Taiwan, October 30, 2018.
748. A.G. Mikos*, "Tissue-Engineered Bone Tumor Microenvironments," Emerging Nanotechnology and Drug Delivery Applications for Cancer Conference, Oklahoma City, Oklahoma, December 6, 2018.
749. A.G. Mikos*, M.E. Wong, and A. Ratcliffe, "Biomedical Device Development and the Food and Drug Administration," Regenerative Orthopedics Conference, San Francisco, California, January 5, 2019.
750. E.R. Molina*, L.K. Chim, M.C. Salazar, S.M. Mehta, B.A. Menegaz, S.-E. Cherradi-Lamhamedi, T. Satish, D. McCall, S. Mohiuddin, A.M. Zaska, K.J. Grande-Allen, J.A. Ludwig, and A.G. Mikos, "Mechanically Tunable 3D Microenvironments Modulate Tumor Cell Phenotype: Models of Mechanotransduction and Drug Resistance in Osteosarcoma," American Association for Cancer Research Annual Meeting, Atlanta, Georgia, March 29, 2019.
751. A.G. Mikos*, S.M. Bittner, and L.A. Díaz Gómez, "Biofabrication Strategies for Complex Tissue Regeneration," ACS Industrial and Engineering Chemistry Fellow Award: Symposium in Honor of Nicholas A. Peppas, National ACS Meeting, Orlando, Florida, March 31, 2019.
752. J. Guo*, Y.S. Kim, V. Xie, J. Lam, P. Engel, and A.G. Mikos, "Modular, Click Functionalized Hydrogels for Multilayered Tissue Engineering," 42nd Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 3, 2019.
753. M. Bedell*, A. Melchiorri, and A.G. Mikos, "Additive Manufacturing of Poly(Methyl Methacrylate) Space Maintainers for Improved Craniofacial Repair," 42nd Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 3, 2019.
754. A. Tataara*, E. Watson, N. Albert, P. Kontoyiannis, D. Kontoyiannis, and A.G. Mikos, "A Murine Model of Cutaneous Aspergillosis for Evaluation of Biomaterials-Based Local Delivery Therapies," 42nd Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 3, 2019.
755. Y.S. Kim*, A. Navara, A. Chien, and A.G. Mikos, "Shear-Thinning, Thermally Responsive Poly(N-isopropylacrylamide)-Based Bioink for 3D Bioprinting Applications," 42nd Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 3, 2019.
756. A.G. Mikos*, "Biomaterials for Tissue Engineering and Disease Modeling," Acta Biomaterialia Gold Medal Lecture, 42nd Annual Meeting of the Society For Biomaterials, Seattle, Washington, April 6, 2019.
757. A.G. Mikos*, "Biomaterials for Tissue Engineering and Modeling Disease," TERMIS-Europe Meeting, Rhodes, Greece, May 27, 2019.
758. A.G. Mikos*, J.P. Fisher, K. Schenke-Layland, H. Shin, J.A. Jansen, and X. Wang, "Tissue Engineering: The Impact, Growth, and Future of the Field; Highlighting the 25th Anniversary of the Journal," TERMIS-Europe Meeting, Rhodes, Greece, May 28, 2019.
759. L. Diaz-Gomez*, P.D. Kontoyiannis, A.J. Melchiorri, and A.G. Mikos, "Biofabrication of Complex Tissue Scaffolds with Controlled Porosity and Composition Gradients," TERMIS-Europe Meeting, Rhodes, Greece, May 30, 2019.
760. A.G. Mikos*, "Biofabrication Technologies for Complex Tissue Regeneration," Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China, June 13, 2019.
761. A.G. Mikos*, "Biomedical Device Development and the Food and Drug Administration," Symposium on Preclinical Evaluation and Clinical Translation of Biodegradable Implants and Tissue Engineering Products, National Institute for Food and Drug Control, Beijing, China, June 19, 2019.
762. A.G. Mikos*, "3D Printing Technologies for Complex Tissue Regeneration," Regenerative Medicine Forum of Biomaterial and Bioprinting Technology, Asia University and China Medical University, Taichung, Taiwan, July 2, 2019.
763. A.G. Mikos*, "Biomaterials for Tissue Engineering and Disease Modeling," Chinese Biomaterials Congress, Dalian, China, August 24, 2019.
764. A.G. Mikos*, "Biomaterials for Cell Delivery in Tissue Engineering," Symposium in Celebration of Arnold I. Caplan's 50th Year at Case Western Reserve University, Cleveland, Ohio, September 6, 2019.
765. E.R. Molina, L.K. Chim*, M.C. Salazar, S.M. Mehta, B.A. Menegaz, S.-E. Lamhamedi-Cherradi, T. Satish, S. Mohiuddin, D. McCall, A.M. Zaske, D.R. Ingram, A.J. Lazar, W.-L. Wang, D.W. Scott, K.J. Grande-Allen, J.A. Ludwig, and A.G. Mikos, "Modeling Divergent Clinical Phenotypes in

- Osteosarcoma with Mechanically Tunable Microenvironments,” Annual BMES Meeting, Philadelphia, Pennsylvania, October 17, 2019.
766. L.K. Chim*, I. Williams, C.J. Bashor, G. Bao, and A.G. Mikos, “Mechanically Tunable Microenvironments to Model Tumor-Associated Macrophages in Osteosarcoma,” Annual BMES Meeting, Philadelphia, Pennsylvania, October 17, 2019.
 767. A.G. Mikos*, “The State of the Lab mikoslab.rice.edu,” A Celebration of Research Excellence and Achievement on the Occasion of Tony Mikos’ 60th Birthday Symposium, TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 2, 2019.
 768. S. Bittner*, B. Smith, E. Watson, M. Smoak, L. Diaz-Gomez, E. Molina, Y. Kim, C. Hudgins, A. Melchiorri, K.J. Grande-Allen, and A.G. Mikos, “Multi-Material 3D Printing with Architectural and Compositional Gradients for Directed Osteogenic Differentiation and Spatial Segregation,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 2, 2019.
 769. M.L. Bedell*, A.J. Melchiorri, J. Aleman, A. Skardal, and A.G. Mikos, “A High-Throughput Approach to Compare the Biocompatibility of Candidate Bioink Formulations,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 2, 2019.
 770. G.L. Koons*, P.D. Kontoyiannis, L. Diaz-Gomez, A.J. Melchiorri, and A.G. Mikos, “Processing Temperatures for the Development of Polymeric Formulations for Extrusion-Based Three-Dimensional Printing with Growth Factors,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 771. J.P. Fisher*, A.G. Mikos, A. Atala, J. Yoo, B. Mahadik, S. Lee, and A. Melchiorri, “3D Bioprinting and Bioreactor-Based Approaches for Complex Tissue Engineering,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 772. K. Hogan*, M. Smoak, and A.G. Mikos, “Development of Photo-Crosslinkable Decellularized Cartilage Extracellular Matrix Bioinks,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 773. M. Smoak*, E. Watson, K. Hogan, and A.G. Mikos, “Development of Electrospun Decellularized Muscle-Derived Scaffolds with Tunable Physicochemical Properties for Tissue Engineering Applications,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 774. L.K. Chim*, I. Williams, C.J. Bashor, G. Bao, and A.G. Mikos, “Modeling Tumor-Associated Macrophages in Osteosarcoma within Mechanically Tunable 3D Microenvironments,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 775. H.A. Pearce*, Y. Kim, J.L. Guo, and A.G. Mikos, “Mimicking Mesenchymal Stem Cell Condensation to Promote Articular Cartilage Regeneration,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 3, 2019.
 776. A.M. Navara*, Y. Kim, and A.G. Mikos, “A Poly(N-Isopropylacrylamide)-Based Thermogelling Bioink for Extrusion Bioprinting,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 4, 2019.
 777. J.L. Guo*, Y. Kim, V.Y. Xie, B.T. Smith, E. Watson, J. Lam, H.A. Pearce, P.S. Engel, and A.G. Mikos, “Modular, Click Functionalized Hydrogels for Cartilage Tissue Engineering,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 4, 2019.
 778. Y. Kim*, A.J. Chien, J.L. Guo, B.T. Smith, E. Watson, H.A. Pearce, G.L. Koons, A.M. Navara, J. Lam, J. Grande-Allen, and A.G. Mikos, “Cell-Laden, Poly(L-Lysine)-Incorporated Injectable Hydrogels for Cartilage Tissue Engineering,” TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 4, 2019.
 779. A.G. Mikos*, “Biomaterials for Tissue Engineering and Disease Modeling,” International Symposium on Biomedical Materials for Drug/Gene Delivery in Honor of the 80th Birthday of Jindřich Kopeček, Salt Lake City, Utah, February 8, 2020.
 780. A.G. Mikos*, “Controlled Release for Tissue Engineering,” Founders Award Lecture, Virtual Annual Meeting of Controlled Release Society, June 29, 2020.
 781. L. Diaz-Gomez*, M.E. Elizondo, G.L. Koons, M. Diba, L.K. Chim, A.J. Melchiorri, and A.G. Mikos, “A Biofabrication Method to Incorporate Low Viscosity Bioinks into 3D Printed Tissue Engineering Scaffolds,” 11th Virtual World Biomaterials Congress, December 11, 2020.
 782. J.L. Guo*, L. Diaz-Gomez, B. Wang, and A.G. Mikos, “3D Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering,” 11th Virtual World Biomaterials Congress, December 13, 2020.

783. J.L. Guo*, A. Li, Y.S. Kim, V.Y. Xie, B.T. Smith, E. Watson, G. Bao, and A.G. Mikos, "Click Functionalized, Tissue-Specific Hydrogels for Osteochondral Tissue Engineering," 11th Virtual World Biomaterials Congress, December 14, 2020.
784. A.G. Mikos*, "3D Printed Scaffolds for Tissue Engineering," Acta Gold Medal Invited Lecture, Virtual Annual Meeting of the Society For Biomaterials, April 20, 2021.
785. A.A. Brozovich*, S. Lenna, F. Paradiso, S. Serpelloni, P. McCulloch, A.G. Mikos, B. Weiner, and F. Taraballi, "Biomimetic Mg-Doped Type I Collagen / Hydroxyapatite Scaffold and Membrane Induces Osteogenesis in Mesenchymal Stem Cells Faster than in 2D Environment," Virtual Annual Meeting of the Society For Biomaterials, April 22, 2021.
786. J.L. Guo*, L. Diaz-Gomez, V.Y. Xie, S.M. Bittner, E. Jiang, B. Wang, and A.G. Mikos, "3D Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering," Virtual Annual Meeting of the Society For Biomaterials, April 22, 2021.
787. J.L. Guo*, Y.S. Kim, G.L. Koons, J. Lam, S. Barrios, A.M. Navara, V.Y. Xie, E. Watson, B.T. Smith, H.A. Pearce, E.A. Orchard, J.J.J.P. van den Beucken, J.A. Jansen, and A.G. Mikos, "Bilayered, Click Biofunctionalized Hydrogels for Osteochondral Repair," Virtual Annual Meeting of the Society For Biomaterials, April 22, 2021.
788. G.L. Koons*, P.D. Kontoyiannis, M. Diba, L.K. Chim, D.W. Scott, and A.G. Mikos, "Characterization of Degradation and Bioactive Growth Factor Release for 3D Printed Poly(Propylene Fumarate)-Based Constructs," Virtual Annual Meeting of the Society For Biomaterials, April 23, 2021.
789. M.E. Wong* and A.G. Mikos*, "Biomolecules and Matrices to Augment Alveolar Hard and Soft Tissue," Edward C. Hinds Symposium of the Houston Society of Oral and Maxillofacial Surgeons, Houston, Texas, April 24, 2021.
790. A.G. Mikos*, "Biomaterials for Tissue Engineering and Disease Modeling," Virtual Annual Meeting of German Society for Biomaterials, October 7, 2021.
791. K. Hogan*, M. Smoak, and A.G. Mikos, "Development of Cartilage Decellularized Extracellular Matrix Ink," 6th World Congress of TERMIS, Maastricht, The Netherlands, November 15, 2021.
792. A.G. Mikos*, "Biomaterials for Tissue Engineering and Disease Modeling," Virtual 8th Biomaterials Days (Turkey), November 18, 2021.
793. M. Diba*, G. Koons, M. Bedell, and A.G. Mikos "Design of Photo-Crosslinkable Colloidal Gels as Bio-Inks for 3D Printing of Tissue Engineering Constructs," 6th World Congress of TERMIS, Maastricht, The Netherlands, November 19, 2021.
794. E.Y. Jiang, A.M. Navara, H.A. Pearce, and A.G. Mikos*, "Injectable and 3D-Printable PNiPAAm-Based Hydrogels for Tissue Engineering," 18th International Symposium on Recent Advances in Drug Delivery Systems – A Tribute to the Late Sung Wan Kim, Salt Lake City, Utah, February 23, 2022.
795. A.G. Mikos*, J.L. Guo, E.Y. Jiang, Y.S. Kim, A.M. Navara, and H.A. Pearce, "Injectable and 3D-Printable PNiPAAm-Based Hydrogels for Tissue Engineering," 7th Aegean Conference on Tissue Engineering in Conjunction with 5th International Conference on Regenerative Biomedical Materials, Ioannina, Greece, May 30, 2022.
796. E.Y. Jiang*, H.A. Pearce, S. Desroches, and A.G. Mikos, "Physicochemical Characterization of Peptide Tethered Thiolated Gelatin Microparticles for Cartilage Tissue Engineering," TERMIS-Americas Annual Conference and Exhibition, Toronto, Canada, July 10, 2022.
797. A.M. Navara*, Y. Kim, Y. Xu, C.L. Crafton, M. Diba, J.L. Guo, and A.G. Mikos, "A Poly(N-Isopropylacrylamide)-Based Dual-Gelling Bioink and Poloxamer Support Bath for High-Resolution Bioprinting," TERMIS-Americas Annual Conference and Exhibition, Toronto, Canada, July 11, 2022.
798. S. Lee*, G. Gillispie, J.P. Fisher, A.G. Mikos, J. Yoo, and A. Atala, "An Extrusion-Based Bioink Artifact for Quantifying Printability and the Influence of Printing Parameters and Cell Density on Bioink Printing Outcomes," TERMIS-Americas Annual Conference and Exhibition, Toronto, Canada, July 11, 2022.
799. M.R. Perez*, K.J. Hogan, and A.G. Mikos, "Incorporation of Decellularized Cartilage Extracellular Matrix Nanoparticles within Photo Reactive Colloidal Bioinks," TERMIS-Americas Annual Conference and Exhibition, Toronto, Canada, July 11, 2022.
800. K.J. Hogan*, M.R. Perez, and A.G. Mikos, "Development of Photocrosslinkable Colloidal Composite Decellularized Cartilage Extracellular Matrix Bioinks," TERMIS-Americas Annual Conference and Exhibition, Toronto, Canada, July 13, 2022.

801. A.G. Mikos* and H.A. Pearce, "Effects of Hydrogel Charge and LCST on Tissue Integration for Cartilage Tissue Engineering," TERMIS-Asia Pacific Conference, Jeju, South Korea, October 6, 2022.
802. M.L. Bedell and A.G. Mikos*, "3D-Printable Hydrogel Bioinks for Tissue Engineering," 22nd International Conference on Bioinformatics and Bioengineering, Taichung, Taiwan, November 7, 2022.
803. A.G. Mikos*, "Injectable and 3D-Printable Biomaterials for Tissue Engineering," Biomaterials Science and Engineering Frontier Forum and 13th International High-End Forum on Biomaterials, Chengdu, China, November 26, 2022.
804. A.G. Mikos*, "Biomaterials for Tissue Engineering," 3rd International Youth Conference on Lignin- and Collagen-Based Materials, Chengdu, China, March 25, 2023.
805. A.G. Mikos*, "Biomaterials in Tissue Engineering," Jensen Tissue Engineering Award Lecture, TERMIS-Americas Annual Conference and Exhibition, Boston, Massachusetts, April 12, 2023.
806. H.A. Pearce*, J.W.R. Swain, L.H. Victor, K.J. Hogan, E.Y. Jiang, M.L. Bedell, A.M. Navara, A. Farsheed, Y.S. Kim, J.L. Guo, J.D. Hartgerink, K.J. Grande-Allen, and A.G. Mikos, "Thermogelling Hydrogel Charge and LCST Influence Cellular Infiltration and Tissue Integration in an *Ex Vivo* Cartilage Explant Model," Annual Meeting and Exposition of the Society For Biomaterials, San Diego, California, April 19, 2023.
807. S. Barrios*, S. Maksimovic, A.G. Mikos, and E. Dondossola, "Engineered Bone for Preclinical Modeling of Prostate Cancer Metastatic Tumor," Annual Meeting and Exposition of the Society For Biomaterials, San Diego, California, April 20, 2023.
808. A.G. Mikos*, "Biomaterials for Tissue Engineering," International Award Lecture, 33rd Annual Conference of European Society for Biomaterials, Davos, Switzerland, September 8, 2023.
809. A.G. Mikos*, "Biomaterials for Tissue Engineering," International Summit Forum of Medical Tissue Engineering, Jinzhou, China, September 22, 2023.
810. A.G. Mikos*, "Biomaterials for Tissue Engineering," 31st Annual Meeting of European Orthopaedic Research Society, Porto, Portugal, September 27, 2023.
811. A.G. Mikos*, "Biomaterials for Regenerative Engineering," Cato T. Laurencin Regenerative Engineering Founder's Award Lecture, Annual AIChE Meeting, Orlando, Florida, November 6, 2023.
812. A.G. Mikos*, "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Osteo Science Foundation Bone Symposium, Napa Valley, California, February 16, 2024.
813. A.G. Mikos*, "3D Printable Biomaterials for Tissue Engineering," American Chemical Society Kathryn C. Hach Award for Entrepreneurial Success: Symposium in Honor of Cato T. Laurencin, National ACS Meeting, New Orleans, Louisiana, March 19, 2024.
814. A.G. Mikos*, "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Forum of Biomaterials and Implantable Device Technology, Chongqing, China, March 30, 2024.
815. A.G. Mikos*, "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Induction Lecture, Royal Academy of Pharmacy of Galicia, Santiago de Compostela, Spain, April 24, 2024.
816. A.G. Mikos*, "3D Printable Biomaterials for Tissue Engineering," Symposium on Frontiers of Biomaterials Science and Engineering in Honor of Professor Xingdong Zhang, 12th World Biomaterials Congress, Daegu, Korea, May 27, 2024.
817. A.G. Mikos*, "Biomaterials for Tissue Engineering and Disease Modeling," Biomaterials Global Impact Award Lecture, 12th World Biomaterials Congress, Daegu, Korea, May 28, 2024.
818. A.G. Mikos*, "Injectable Hydrogels for Tissue Engineering," Symposium on 100 Years of Biomaterials Design Contributions of Edward Merrill (1923-2020), 12th World Biomaterials Congress, Daegu, Korea, May 29, 2024.
819. A.G. Mikos*, "The Added Value of Student Exchanges in International Collaborations," 7th World Congress of TERMIS, Seattle, Washington, June 27, 2024.
820. A.G. Mikos*, "The High Value of Bad Data in 3D Printing of Tissue Engineering Scaffolds," 7th World Congress of TERMIS, Seattle, Washington, June 27, 2024.
821. A.G. Mikos*, "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Continental European Division-International Association for Dental, Oral, and Craniofacial Research Summer School, Thessaloniki, Greece, July 8, 2024.
822. A.G. Mikos*, "Extracellular Matrix-Based Biomaterials for Tissue Engineering," International Forum on the Frontiers of Biomaterials Science and Engineering, Chengdu, China, August 9, 2024.

823. A.G. Mikos*, "Tissue Engineering," International Symposium on Engineering and Technology for Regenerative Therapy, Kyoto, Japan, August 24, 2024.
824. V. Kolliopoulos*, A. Letca, S. Chari, E. Jeon, M. Perez, and A.G. Mikos, "3D Printing Scaffolds for the Improved Regeneration and Repair of Bone Defects," 8th Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, May 26, 2025.
825. L. Aboal, M. Pita-Vilar, C. Lorenzo-Alvarez, A.G. Mikos, M.T. Flores-Arias, and L. Diaz-Gomez*, "Laser Micropatterning of 3D Scaffolds to Modulate Cellular Behavior," 8th Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, May 27, 2025.
826. E.Y. Jiang, Z. Helal, R. Umurhan, M. Moise, V. Kolliopoulos, S. Desroches, H.A. Pearce, and A.G. Mikos*, "Investigating the Effect of Charge on Controlled Release of a Model Osteogenic Peptide," 8th Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, May 28, 2025.
827. A.G. Mikos*, "Biomaterials for Tissue Engineering," Academy of Physician Scientists Engines of Ingenuity in Medicine Annual Symposium, Houston, Texas, June 12, 2025.
828. A.G. Mikos*, "Biomaterials for Tissue Engineering," 2nd BMEMat-Advanced Materials Joint Symposium and International Meeting on Biomedical Engineering, Jinan, China, July 19, 2025.

* Speaker

Invited Lectures at Universities and Companies

1. "Hepatocyte Scaffolding and Liver Regeneration," Ben Gurion University of the Negev, Department of Chemical Engineering and Bioengineering Program, Beer Sheva, Israel, May 28, 1992.
2. "Liver Regeneration by Hepatocyte Transplantation," Texas Biotechnology Corporation, Houston, Texas, October 30, 1992.
3. "Tissue Engineering by Cell Transplantation," Baylor College of Medicine, Department of Medicine, Houston, Texas, February 22, 1993.
4. "Creation of a Liver Organoid by Hepatocyte Transplantation," Baylor College of Medicine, Department of Pathology, Houston, Texas, March 23, 1993.
5. "Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone," NASA Lyndon B. Johnson Space Center, Houston, Texas, December 6, 1993.
6. "Extracellular Matrix Analogs to Engineer Tissues," Houston Matrix Assembly, M.D. Anderson Cancer Center, Houston, Texas, March 7, 1994.
7. "Polymer Processing Technology for Organ Regeneration," ETH Zürich, Chair of Biocompatible Materials Science and Engineering, Zürich, Switzerland, March 11, 1994.
8. "Osteoblast Culture on Biodegradable Polymer Scaffolds to Engineer Bone," The University of Texas Health Science Center at San Antonio, Department of Orthopaedics, San Antonio, Texas, March 25, 1994.
9. "Biodegradable Polymer Scaffolds to Engineer Trabecular Bone," The University of Michigan, Bioengineering Program, Ann Arbor, Michigan, January 23, 1995.
10. "Engineering Human Tissues," Southeast Texas Chapter of AIChE, Beaumont, Texas, March 14, 1995.
11. "Orthopaedic Biomaterials for Bone Regeneration and Repair," Osteobiologics, San Antonio, Texas, June 15, 1995.
12. "Biodegradable Polymer Scaffolds for Tissue Engineering," CytoTherapeutics, Providence, Rhode Island, October 6, 1995.
13. "Engineering Human Tissue," University of Houston, Bioengineering Research Center, Houston, Texas, November 3, 1995.
14. "Engineering Trabecular Bone Using Biodegradable Polymers," Texas Medical Center Chapter of Sigma Xi, Houston, Texas, November 21, 1995.
15. "Engineering Trabecular Bone Using Biodegradable Polymers," University of Houston, Department of Chemical Engineering, Houston, Texas, December 1, 1995.
16. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Cornell University, Department of Chemical Engineering, Ithaca, New York, February 13, 1996.
17. "Bone Tissue Engineering," State University of New York at Buffalo, Department of Chemical Engineering, Buffalo, New York, May 28, 1996.

18. "Bone Tissue Engineering," Princeton University, Department of Chemical Engineering and Princeton Materials Institute, Princeton, New Jersey, September 18, 1996.
19. "Bone Tissue Engineering," Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, D.C., October 4, 1996.
20. "Tissue Engineering," The University of Texas Health Science Center at San Antonio, Department of Surgery, Division of Oral & Maxillofacial Surgery, San Antonio, Texas, December 19, 1996.
21. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," The Cleveland Clinic Foundation, Department of Biomedical Engineering, Cleveland, Ohio, April 25, 1997.
22. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Johnson&Johnson Corporate Biomaterials Center, Somerville, New Jersey, June 2, 1997.
23. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Osiris Therapeutics, Baltimore, Maryland, July 16, 1997.
24. "Biodegradable Polymers for Peripheral Nerve and Vascular Tissue Engineering," Princeton University, Department of Chemical Engineering and Princeton Materials Institute, Princeton, New Jersey, September 24, 1997.
25. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," University of Maryland, Department of Chemical Engineering, College Park, Maryland, October 14, 1997.
26. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," University of Toledo, Department of Bioengineering, Toledo, Ohio, October 31, 1997.
27. "Biodegradable Polymers for Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, November 6, 1997.
28. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Texas A&M University, Department of Chemical Engineering, College Station, Texas, December 5, 1997.
29. "Guided Bone Regeneration Using Biodegradable Polymer Scaffolds," Oklahoma State University, Department of Chemical Engineering, Stillwater, Oklahoma, February 12, 1998.
30. "Biodegradable Polymers for Tissue Engineering," Pittsburgh Tissue Engineering Initiative, Pittsburgh, Pennsylvania, February 19, 1998.
31. "Engineering Human Tissue," The Dean's Series: The School of Engineering, Rice University, Houston, Texas, April 15, 1998.
32. "Biodegradable Polymers for Tissue Engineering," University of Utah, Department of Pharmaceutics and Pharmaceutical Chemistry, Salt Lake City, Utah, May 13, 1998.
33. "Biodegradable Polymers for Tissue Engineering," University of Toronto, Department of Chemical Engineering and Applied Chemistry, Toronto, Canada, June 3, 1998.
34. "Biodegradable Materials for Tissue Engineering," Valley Tissue Engineering Center, Albert-Ludwigs-University, Department of Plastic and Hand Surgery, Freiburg, Germany, July 11, 1998.
35. "Biodegradable Polymers for Tissue Engineering," University of Regensburg, Department of Pharmaceutical Technology, Regensburg, Germany, July 13, 1998.
36. "Biodegradable Polymers for Tissue Engineering," Pennsylvania State University, Department of Chemical Engineering, State College, Pennsylvania, September 22, 1998.
37. "Engineering Human Tissue," Rice University, Department of Mathematics, Houston, Texas, October 15, 1998.
38. "Injectable Biomaterials for Tissue Engineering," Purdue University, Department of Industrial and Physical Pharmacy, West Lafayette, Indiana, October 27, 1998.
39. "Biodegradable Polymers for Tissue Engineering," State University of New York at Buffalo, Department of Chemical Engineering, Buffalo, New York, April 9, 1999.
40. "Engineering Human Tissue," Rice University, Alumni College 1999, Houston, Texas, April 18, 1999.
41. "Injectable Biomaterials for Tissue Engineering," Novartis Pharmaceuticals, Summit, New Jersey, April 27, 1999.
42. "Bone Tissue Engineering Using Biodegradable Polymer Scaffolds," Johns Hopkins University, Department of Chemical Engineering, Baltimore, Maryland, May 26, 1999.
43. "Orthopaedic Tissue Engineering," Korea Research Institute of Chemical Technology, Taejon, Korea, September 14, 1999.
44. "Synthetic Polymers as Non-Viral Vectors for Gene Therapy," Shell Center for Gene Therapy, Baylor College of Medicine, Houston, Texas, October 5, 1999.

45. "Synthetic Biomaterials as Non-Viral Vectors for Gene Therapy," Distinguished Lecture Series in Nanomaterials and Biomaterials, University of Maryland, Department of Materials and Nuclear Engineering, College Park, Maryland, November 12, 1999.
46. "Synthetic Polymers for Tissue Engineering and Gene Therapy," University of Akron, Department of Chemical Engineering, Akron, Ohio, February 10, 2000.
47. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Northwestern University, Department of Chemical Engineering, Evanston, Illinois, April 6, 2000.
48. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Translation of Biomaterials Research into Biotechnology Symposium, Materials Research Science and Engineering Center, University of Chicago, Chicago, Illinois, April 8, 2000.
49. "Injectable Biodegradable Polymers for Tissue Engineering," Chrysalis BioTechnology, Galveston, Texas, May 31, 2000.
50. "Synthetic Polymers for Tissue Engineering and Gene Therapy," University of Nijmegen, Department of Biomaterials, Nijmegen, The Netherlands, June 23, 2000.
51. "Injectable Biodegradable Polymers for Tissue Engineering," Becton Dickinson Technologies, Research Triangle Park, North Carolina, July 21, 2000.
52. "Synthetic Polymers for Tissue Engineering and Gene Therapy," Kyoto University, Institute for Frontier Medical Sciences, Kyoto, Japan, July 31, 2000.
53. "Injectable Biomaterials for Guided Bone Regeneration," Tokyo Women's Medical University, Institute of Biomedical Engineering, Tokyo, Japan, November 18, 2000.
54. "Synthetic Biomaterials as Non-Viral Vectors for Gene Delivery," Parker H. Petit Institute for Bioengineering and Bioscience, Georgia Institute of Technology, Atlanta, Georgia, January 25, 2001.
55. "Bioreactor Design for Three-Dimensional Cell-Polymer Constructs in Bone Tissue Engineering," The University of Michigan, Department of Biomedical Engineering, Ann Arbor, Michigan, March 5, 2001.
56. "Synthetic Biodegradable Polymers for Tissue Engineering," American Society of Materials International, Houston Chapter, Houston, Texas, March 6, 2001.
57. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Disc Dynamics, Inc., Minnetonka, Minnesota, April 24, 2001.
58. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," Mayo Clinic, Biomedical Engineering Program, Rochester, Minnesota, April 27, 2001.
59. "Synthetic Biodegradable Polymer Scaffolds for Bone Tissue Engineering," University of South Carolina, Department of Chemical Engineering, Columbia, South Carolina, May 10, 2001.
60. "Poly(Ethylenimine) as a Gene Delivery Vehicle and Its Potential for Gene Therapy," Baylor College of Medicine, Department of Molecular Physiology and Biophysics, Houston, Texas, October 16, 2001.
61. "Biomimetic Hydrogels for Bone Tissue Engineering," Purdue University, NSF Program on Therapeutic and Diagnostic Devices, School of Chemical Engineering, and Department of Biomedical Engineering, West Lafayette, Indiana, October 25, 2001.
62. "Synthetic Biodegradable Polymers for Bone Tissue Engineering," Medtronic Sofamor Danek, Memphis, Tennessee, January 29, 2002.
63. "Synthetic Biodegradable Polymers for Bone Tissue Engineering," Baylor College of Medicine, Division of Plastic Surgery, Houston, Texas, February 1, 2002.
64. "Bioreactor Technology for Bone Tissue Engineering," University of Pittsburgh, McGowan Institute for Regenerative Medicine, Pittsburgh, Pennsylvania, February 6, 2002.
65. "Bioreactor Technology for Bone Tissue Engineering," Arizona State University, Department of Bioengineering, Tempe, Arizona, February 20, 2002.
66. "Injectable, *In Situ* Crosslinkable, Biodegradable Polymers for Peptide and Gene Delivery," Bausch & Lomb, Rochester, New York, June 11, 2002.
67. "Bioreactor Technology for Bone Tissue Engineering," Rensselaer Polytechnic Institute, Department of Biomedical Engineering, Troy, New York, October 9, 2002.
68. "Engineering Human Tissue," Baylor College of Medicine, Medical Scientist Training Program, Houston, Texas, October 17, 2002.
69. "Bioreactor Technology for Bone Tissue Engineering," Michigan State University, Department of Chemical Engineering and Materials Science, East Lansing, Michigan, February 6, 2003.
70. "Bone Tissue Engineering Using Biodegradable Polymers," Baylor College of Medicine, Department of Pediatrics, Endocrine and Metabolism Section, Houston, Texas, March 13, 2003.

71. "Synthetic Polymers for Tissue Engineering," Carnegie Mellon University, Department of Biomedical Engineering, Pittsburgh, Pennsylvania, June 4, 2003.
72. "Intraocular Delivery Systems for Fluocinolone Acetonide Using Biodegradable Fumarate-Based Polymers," Bausch & Lomb, Rochester, New York, July 30, 2003.
73. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Case Western Reserve University, Department of Biomedical Engineering, Cleveland, Ohio, September 19, 2003.
74. "Tissue Engineering," NWO | Huygens Lecture, Netherlands Organization for Scientific Research, The Hague, The Netherlands, November 5, 2003.
75. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Advanced Materials Research Center, Nanyang Technological University, Singapore, December 3, 2003.
76. "Fluid Flow in Tissue Engineering of 3D Bone Scaffolds," Duke University, Department of Biomedical Engineering, Durham, North Carolina, January 8, 2004.
77. "New Scaffolding Technologies for Tissue Engineering," Baylor College of Medicine, Center for Tissue Repair, Regeneration and Engineering, Houston, Texas, February 6, 2004.
78. "Tissue Engineering," Rice University, Department of Mechanical Engineering and Materials Science, Houston, Texas, February 6, 2004.
79. "Synthetic Polymers for Tissue Engineering," ETH Zürich, Institute of Chemical and Bioengineering, Zürich, Switzerland, February 23, 2004.
80. "Biodegradable, *In Situ* Crosslinkable Hydrogels as Injectable Carriers for Cell and Drug Delivery," Roger Malkin Distinguished Lecture, Mississippi State University, Mississippi State, Mississippi, March 4, 2004.
81. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Procter and Gamble Lecture, Iowa State University, Department of Chemical Engineering, Ames, Iowa, April 22, 2004.
82. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Institute of Bioengineering and Nanotechnology, Singapore, June 3, 2004.
83. "Injectable Hydrogels for Cell and Growth Factor Delivery," Genzyme Corporation, Cambridge, Massachusetts, August 31, 2004.
84. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," Tulane University, Department of Chemical and Biomolecular Engineering, New Orleans, Louisiana, September 10, 2004.
85. "Drug and Cell Delivery from Injectable, Biodegradable Polymeric Scaffolds for Tissue Engineering," University of Iowa, College of Pharmacy, Iowa City, Iowa, September 20, 2004.
86. "Engineering Human Tissue," Rice University, Alumni College 2005, Houston, Texas, February 27, 2005.
87. "Injectable Biodegradable Polymeric Scaffolds for Tissue Engineering," University of California, Irvine, Department of Biomedical Engineering, Irvine, California, April 14, 2005.
88. "Biodegradable Polymers for Orthopaedic Tissue Engineering," Stryker Orthopaedics Corporation, Mahwah, New Jersey, May 17, 2005.
89. "Modulation of Cell Differentiation in Bone Tissue Engineering Constructs Cultured in a Bioreactor," Symposium on New Trends in Biomaterials-Tissue Engineering, National University of Singapore, Singapore, July 9, 2005.
90. "Biodegradable Polymeric Drug Delivery Systems for Ocular Applications," Bausch & Lomb, Rochester, New York, August 4, 2005.
91. "Injectable Biodegradable Polymer Scaffolds for Tissue Engineering," Nano-scale Delivery of Drugs, Genes, and Cells-The Changing Face of Biomaterials, Pharmaceutical Sciences Symposium Honoring the Career of Professor Joseph R. Robinson, University of Wisconsin, Madison, Wisconsin, October 14, 2005.
92. "Injectable Biodegradable Polymer Scaffolds for Tissue Engineering," Columbia University, Department of Biomedical Engineering, New York, New York, November 11, 2005.
93. "Development of an Osteoinductive Bone Graft," State University of New York at Stony Brook, Department of Biomedical Engineering, Stony Brook, New York, February 15, 2006.
94. "Bioreactors for Bone Tissue Engineering," The University of Texas M.D. Anderson Cancer Center, The Bone Disease Program of Texas, Houston, Texas, February 17, 2006.
95. "Tissue Engineering at Rice," Rice University, Alumni College 2006, Houston, Texas, March 5, 2006.

96. "Development of an Osteoinductive Bone Graft," Baylor College of Medicine, Department of Orthopaedic Surgery, Houston, Texas, March 17, 2006.
97. "Bioreactors for Bone Tissue Engineering," Johns Hopkins University, Department of Materials Science and Engineering, Baltimore, Maryland, April 5, 2006.
98. "Bioreactors for Bone Tissue Engineering," Vanderbilt University, Department of Chemical Engineering, Nashville, Tennessee, April 10, 2006.
99. "Development of an Osteoinductive Bone Graft," Koret Foundation Lecture, University of California Davis, Department of Orthopaedic Surgery, Sacramento, California, June 15, 2006.
100. "Injectable Hydrogel Composites for Articular Cartilage Tissue Engineering," Kyoto University, Department of Biomaterials, Field of Tissue Engineering, Institute for Frontier Medical Sciences, Kyoto, Japan, September 9, 2006.
101. "Bioreactors for Tissue Engineering," The Cleveland Clinic, Clinical Tissue Engineering Center, Cleveland, Ohio, September 21, 2006.
102. "Development of an Osteoinductive Bone Graft," Georgia Institute of Technology, Coulter Department of Biomedical Engineering and Parker H. Petit Institute for Bioengineering and Bioscience, Atlanta, Georgia, October 5, 2006.
103. "Development of an Osteoinductive Bone Graft," University of Virginia, Department of Biomedical Engineering, Charlottesville, Virginia, December 1, 2006.
104. "Biomaterials for Tissue Engineering," DSM Biomedical Materials, Geleen, The Netherlands, March 8, 2007.
105. "Nanobiomaterials for Tissue Engineering," Purdue University, School of Chemical Engineering, West Lafayette, Indiana, March 20, 2007.
106. "Biomaterials for Tissue Engineering," Shanghai Jiao Tong University, Shanghai Ninth People's Hospital, National Tissue Engineering Center of China, Shanghai, China, May 9, 2007.
107. "Biomaterials for Tissue Engineering," Tsinghua University, School of Materials Science and Engineering, Beijing, China, May 11, 2007.
108. "Biomaterials for Tissue Engineering," Fourth Military Medical University, School of Stomatology, Center for Tissue Engineering, Xi'an, China, May 17, 2007.
109. "Nanobiomaterials for Tissue Engineering," Baylor University, Department of Chemistry and Biochemistry, Waco, Texas, September 7, 2007.
110. "Nanobiomaterials for Tissue Engineering," University of Pennsylvania, Department of Bioengineering, Philadelphia, Pennsylvania, September 13, 2007.
111. "Biomaterials in Tissue Engineering," James Gibb Johnson Distinguished Visiting Lecture, University of Tennessee Health Science Center, Department of Biomedical Engineering and Imaging, Memphis, Tennessee, October 12, 2007.
112. "Biomaterials in Tissue Engineering," University of Dayton, Center for Tissue Regeneration and Engineering, Dayton, Ohio, November 1, 2007.
113. "Nanobiomaterials for Bone Tissue Engineering," Centenary Seminar Series Lecture, Imperial College, Department of Chemical Engineering and Chemical Technology, London, England, November 14, 2007.
114. "Bone Regeneration Using Biodegradable Polymers," Baylor College of Dentistry, Department of Biomedical Sciences, Dallas, Texas, February 13, 2008.
115. "Bone Tissue Engineering," Rice University, Susanne M. Glasscock School of Continuing Studies, Houston, Texas, March 13, 2008.
116. "Synthetic Scaffolds for Tissue Engineering," Texas A&M University, Department of Biomedical Engineering, College Station, Texas, March 17, 2008.
117. "Biomaterials in Tissue Engineering," Robert A. Pritzker Distinguished Lecture, Illinois Institute of Technology, Department of Biomedical Engineering, Chicago, Illinois, March 28, 2008.
118. "Polymer Scaffolds for Bone Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, April 3, 2008.
119. "Synthetic Scaffolds for Bone Tissue Engineering," University of Illinois at Urbana-Champaign, Department of Chemical and Biomolecular Engineering, Urbana, Illinois, April 8, 2008.
120. "Synthetic Scaffolds for Tissue Engineering," Laval University, Laboratoire d'Organogénèse Expérimentale, Québec, Canada, May 5, 2008.
121. "Controlled Delivery of Angiogenic and Osteogenic Growth Factors for Bone Tissue Engineering," Seoul National University Hospital, Department of Orthopedic Surgery, Seoul, Korea, May 23, 2008.

122. "Scaffolds for Tissue Engineering," Academy of Military Medical Sciences, Tissue Engineering Research Center, Beijing, China, September 1, 2008.
123. "Mineralized Extracellular Matrix Constructs for Bone Tissue Engineering," University of California Santa Barbara, Department of Chemical Engineering, Santa Barbara, California, October 8, 2008.
124. "Synthetic Scaffolds for Tissue Engineering," University of Houston, Department of Pharmacological and Pharmaceutical Sciences, Houston, Texas, October 22, 2008.
125. "Synthetic Scaffolds for Tissue Engineering," University of Texas at San Antonio, Department of Biomedical Engineering, San Antonio, Texas, March 5, 2009.
126. "Synthetic Scaffolds for Tissue Engineering," University of Minnesota, Department of Biomedical Engineering, Minneapolis, Minnesota, March 30, 2009.
127. "Synthetic Scaffolds for Tissue Engineering," Cornell University, Department of Biomedical Engineering, Ithaca, New York, April 8, 2009.
128. "Synthetic Scaffolds for Tissue Engineering," Twenty-Five Years Celebration Distinguished Lecture, Institute of Chemical Engineering and High Temperature Chemical Processes, Patras, Greece, July 3, 2009.
129. "Emerging Biomaterial Approaches for Bone Regeneration," Case Western Reserve University, Department of Biomedical Engineering and Center for Stem Cell and Regenerative Medicine, Cleveland, Ohio, December 4, 2009.
130. "Emerging Biomaterial Approaches for Bone Regeneration," University of Delaware, Department of Materials Science and Engineering, Newark, Delaware, March 10, 2010.
131. "Advancing Biomaterial Strategies for Musculoskeletal Tissue Engineering," Guangxi Normal University, College of Chemistry and Chemical Engineering, Guilin, China, September 5, 2010.
132. "Antibiotic-Releasing Porous Space Maintainers for Craniofacial Tissue Engineering," Texas A&M University, Materials Science and Engineering Program, College Station, Texas, February 18, 2011.
133. "Advancing Biomaterial Strategies for Bone Tissue Engineering," Dean's Lecture, University of Maryland Dental School, Baltimore, Maryland, February 22, 2011.
134. "Advancing Biomaterial Strategies for Bone Tissue Engineering," Page Morton Hunter Distinguished Lecture, Clemson University, Department of Bioengineering, Clemson, South Carolina, March 9, 2011.
135. "Injectable Cell-Laden Hydrogel Composites for Osteochondral Tissue Engineering," Amrita Institute of Medical Sciences and Research Center, Kochi, India, March 21, 2011.
136. "Modulation of Chondrogenic and Osteogenic Differentiation of Mesenchymal Stem Cells through Signals in the Extracellular Microenvironment," Amrita Institute of Medical Sciences and Research Center, Kochi, India, March 25, 2011.
137. "Advancing Biomaterial Strategies for Bone Tissue Engineering," Distinguished Lecture, University of California Davis, Department of Biomedical Engineering, Davis, California, April 7, 2011.
138. "Advancing Biomaterial Strategies for Bone Tissue Engineering," Columbia University, Department of Biomedical Engineering, New York, New York, April 28, 2011.
139. "Materials Design for Tissue Engineering," Allan G. Brodie Endowed Lecture, University of Illinois at Chicago, College of Dentistry, Chicago, Illinois, September 1, 2011.
140. "Biomaterials for Tissue Engineering," National Institutes of Health Director's Wednesday Afternoon Lecture, National Institutes of Health, Bethesda, Maryland, September 28, 2011.
141. "Biomaterials for Tissue Engineering," Purdue University, Weldon School of Biomedical Engineering, West Lafayette, Indiana, October 7, 2011.
142. "Advancing Scaffold Based Approaches for Bone Tissue Engineering," University of Pittsburgh, Department of Bioengineering, Pittsburgh, Pennsylvania, November 3, 2011.
143. "Development of Porous Space Maintainers for Craniofacial Tissue Engineering," Hong Kong University of Science and Technology, Department of Chemical and Biomolecular Engineering, Hong Kong, November 14, 2011.
144. "Nanomedicine and Its Future Applications in Infectious Diseases Diagnosis and Management," M.D. Anderson Cancer Center, Advances in Oncology Institutional Grand Rounds, Houston, Texas, December 2, 2011.
145. "Advancing Biomaterial Strategies for Bone Tissue Engineering," University of Alabama at Birmingham, Department of Biomedical Engineering, Birmingham, Alabama, January 13, 2012.
146. "Advancing Scaffold-Based Approaches for Bone Tissue Engineering," University of Texas at Austin, Department of Biomedical Engineering, Austin, Texas, March 29, 2012.

147. "Complexity in Tissue Engineering," DSM Biomedical, Geleen, The Netherlands, October 19, 2012.
148. "Synthetic Polymer Scaffolds for Bone Tissue Engineering," Toray Industries, Inc., Shiga, Japan, December 11, 2012.
149. "Biomaterials for Tissue Engineering," Zandmer Distinguished Lecture, University of Calgary, Department of Chemical and Petroleum Engineering, Calgary, Canada, February 6, 2013.
150. "Injectable Thermosensitive Hydrogels for Bone Tissue Engineering," Zandmer Distinguished Lecture, University of Calgary, Department of Chemical and Petroleum Engineering, Calgary, Canada, February 7, 2013.
151. "Biomaterials for Tissue Engineering," Frontiers in Bioengineering Workshop, Georgia Institute of Technology, Parker H. Petit Institute for Bioengineering and Bioscience, Atlanta, Georgia, February 25, 2013.
152. "Advancing Scaffold-Based Approaches for Bone Tissue Engineering," Michael W. Chapman and Elizabeth Chapman Lecture, University of California Davis, Department of Orthopaedic Surgery, Davis, California, March 12, 2013.
153. "Biomaterials for Drug Delivery and Tissue Engineering," Distinguished Lecture, University of São Paulo, Bauru School of Dentistry, Bauru, Brazil, April 2, 2013.
154. "Biomaterials for Drug Delivery and Tissue Engineering," Distinguished Lecture, University of São Paulo, Bauru School of Dentistry, Bauru, Brazil, April 3, 2013.
155. "Biomaterials for Drug Delivery and Tissue Engineering," University of São Paulo, Cell and Molecular Therapy Center, São Paulo, Brazil, April 4, 2013.
156. "Advancing Biomaterial Strategies for Bone Tissue Engineering," University of California San Francisco, Program in Craniofacial and Mesenchymal Biology, San Francisco, California, April 18, 2013.
157. "Advancing Scaffold-Based Approaches for Bone Tissue Engineering," University of Minnesota, Department of Chemical Engineering and Materials Science, Minneapolis, Minnesota, April 23, 2013.
158. "Frontiers of Tissue Engineering and Regenerative Medicine," Huazhong University of Science and Technology, Advanced Biomaterials and Tissue Engineering Center, Wuhan, China, June 6, 2013.
159. "Advancing Scaffold-Based Approaches for Tissue Engineering," Fred S. Grodins Keynote Lecture, University of Southern California, Department of Biomedical Engineering, Los Angeles, California, September 5, 2013.
160. "Biomaterials for Tissue Engineering," MRI-Huck Distinguished Lecture, Pennsylvania State University, Materials Research Institute and The Huck Institutes of the Life Sciences, University Park, Pennsylvania, September 12, 2013.
161. "Advancing Scaffold-Based Approaches for Tissue Engineering," Princeton University, Department of Chemical and Biological Engineering, Princeton, New Jersey, October 9, 2013.
162. "Frontiers of Tissue Engineering and Regenerative Medicine," Academy of Military Medical Sciences, Institute of Basic Medical Sciences and Tissue Engineering Research Center, Beijing, China, October 28, 2013.
163. "Biomaterials for Tissue Engineering," University of British Columbia, Department of Chemical and Biological Engineering, Vancouver, Canada, January 20, 2014.
164. "Biomaterials for Tissue Engineering," University of Texas Medical School at Houston, Department of Pediatrics, Houston, Texas, March 25, 2014.
165. "Biomaterials for Tissue Engineering," University of Houston, Department of Chemical and Biomolecular Engineering, Houston, Texas, April 11, 2014.
166. "Injectable, Dual Gelling Hydrogels for Stem Cell Delivery for Craniofacial Tissue Engineering," Huazhong University of Science and Technology, Advanced Biomaterials and Tissue Engineering Center, Wuhan, China, September 21, 2014.
167. "Biomaterials for Tissue Engineering," William F. Neuman Lecture, University of Rochester, Center for Musculoskeletal Research, Rochester, New York, November 12, 2014.
168. "Biomaterials for Articular Cartilage Repair," Edward T. Smith Orthopaedic Lecture, University of Texas Health Science Center at Houston, Department of Orthopaedic Surgery, Houston, Texas, November 14, 2014.
169. "Biomaterials for Bone Regeneration," Edward T. Smith Orthopaedic Lecture, University of Texas Health Science Center at Houston, Department of Orthopaedic Surgery, Houston, Texas, November 14, 2014.

170. "Biomaterials for Tissue Engineering," The University of Michigan, Department of Chemical Engineering, Ann Arbor, Michigan, December 2, 2014.
171. "Biomaterials for Tissue Engineering," Distinguished Lecture, Johns Hopkins University, Department of Biomedical Engineering, Baltimore, Maryland, February 2, 2015.
172. "Biomaterials for Tissue Engineering," Harry G. Fair Memorial Lecture in Chemical Engineering, University of Oklahoma, School of Chemical, Biological and Materials Engineering, Norman, Oklahoma, February 12, 2015.
173. "Tissue Engineering: Current Status and Future Perspectives," Mary Ann Liebert, Inc., Publishers, New Rochelle, New York, April 7, 2015.
174. "Injectable Dual Gelling Hydrogels for Stem Cell Delivery for Craniofacial Tissue Engineering," Tsinghua University, School of Materials Science and Engineering, Beijing, China, June 10, 2015.
175. "Delivering Tissue-Specific Mesenchymal Stem Cells or Growth Factors from Bilayered Hydrogels for Osteochondral Tissue Repair," Academy of Military Medical Sciences, Institute of Basic Medical Sciences and Tissue Engineering Research Center, Beijing, China, June 12, 2015.
176. "Biomaterials for Tissue Engineering," Cornell University, Meinig School of Biomedical Engineering, Ithaca, New York, September 3, 2015.
177. "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," Boğaziçi University, Institute of Biomedical Engineering, Istanbul, Turkey, November 25, 2015.
178. "Biomaterials for Tissue Engineering," Distinguished Lecture, University of California Riverside, Department of Bioengineering, Riverside, California, February 10, 2016.
179. "Tissue Engineering Fundamentals and Applications: Biomaterials," Sichuan University, National Engineering Research Center for Biomaterials, Chengdu, China, February 29, 2016.
180. "Tissue Engineering Fundamentals and Applications: Cells and Growth Factors," Sichuan University, National Engineering Research Center for Biomaterials, Chengdu, China, March 1, 2016.
181. "Tissue Engineering Fundamentals and Applications: Enabling Technologies," Sichuan University, National Engineering Research Center for Biomaterials, Chengdu, China, March 2, 2016.
182. "Tissue Engineering Fundamentals and Applications: Considerations and Applications," Sichuan University, National Engineering Research Center for Biomaterials, Chengdu, China, March 3, 2016.
183. "Tissue Engineering Fundamentals and Applications: Enabling Technologies," Huazhong University of Science and Technology, Advanced Biomaterials and Tissue Engineering Center, Wuhan, China, March 7, 2016.
184. "Tissue Engineering Fundamentals and Applications: Considerations and Applications," Huazhong University of Science and Technology, Advanced Biomaterials and Tissue Engineering Center, Wuhan, China, March 7, 2016.
185. "Current and Emerging Trends in Tissue Engineering," Mary Ann Liebert, Inc., Publishers, New Rochelle, New York, April 11, 2016.
186. "Biomaterials for Tissue Engineering," Distinguished Lecture, Tsinghua University, School of Materials Science and Engineering, Beijing, China, May 10, 2016.
187. "Biomaterials for Tissue Engineering," The University of Michigan, School of Dentistry, Ann Arbor, Michigan, June 10, 2016.
188. "Biomaterials for Tissue Engineering," 2nd Annual Transdisciplinary Symposium of Smalley-Curl Institute, Rice University, Houston, Texas, February 9, 2017.
189. "Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering," Alumni Lecture, University of Massachusetts Amherst, Department of Chemical Engineering, Amherst, Massachusetts, March 9, 2017.
190. "Biomaterials for Tissue Engineering," Alumni Lecture, University of Massachusetts Amherst, Department of Chemical Engineering, Amherst, Massachusetts, March 10, 2017.
191. "Biomaterials for Tissue Engineering," National Technical University of Athens, School of Chemical Engineering, Athens, Greece, September 6, 2017.
192. "Biomaterials for Tissue Engineering," Iowa State University, Department of Chemical and Biological Engineering, Ames, Iowa, October 5, 2017.
193. "Synthetic Scaffolds for Tissue Engineering," Hanyang University, Department of Bioengineering, Seoul, Korea, October 18, 2017.
194. "Recent Advances in Tissue Engineering," Chung-Ang University, School of Integrative Engineering, Seoul, Korea, October 18, 2017.
195. "Biomaterials for Tissue Engineering and Regenerative Medicine," University of North Carolina at

- Chapel Hill and North Carolina State University, Joint Department of Biomedical Engineering, Raleigh, North Carolina, November 3, 2017.
196. "Advances in Biomaterials and Bioreactors for Tissue Engineering," Huazhong University of Science and Technology, Advanced Biomaterials and Tissue Engineering Center, Wuhan, China, December 6, 2017.
 197. "Advances in Biomaterials and Bioreactors for Tissue Engineering," Tsinghua University, School of Materials Science and Engineering, Beijing, China, December 11, 2017.
 198. "Advances in Biomaterials and Bioreactors for Tissue Engineering," Academy of Military Medical Sciences, Department of Advanced Interdisciplinary Studies, Beijing, China, December 12, 2017.
 199. "Biomaterials for Tissue Engineering and Regenerative Medicine," Koret Foundation Lecture, University of California Davis, Department of Orthopaedic Surgery, Sacramento, California, February 13, 2018.
 200. "3D Printing of Tissue Engineering Constructs," University of California Davis, Department of Orthopaedic Surgery, Sacramento, California, February 13, 2018.
 201. "Biomaterials for Tissue Engineering," Arizona State University, School for Engineering of Matter, Transport and Energy, Tempe, Arizona, March 19, 2018.
 202. "Biomaterials for Tissue Engineering and Regenerative Medicine," Weifang Medical University, Weifang, China, March 30, 2018.
 203. "Biomaterials for Tissue Regeneration," Inaugural Symposium on Regenerative Engineering, Northwestern University, Chicago, Illinois, May 31, 2018.
 204. "Biomaterials for Tissue Engineering," Stanford University, Department of Orthopaedic Surgery, Stanford, California, June 25, 2018.
 205. "Biomaterials for Tissue Engineering and Regenerative Medicine," Wake Forest University, Wake Forest Institute for Regenerative Medicine, Winston-Salem, North Carolina, August 29, 2018.
 206. "Development of Biomaterials for Use in Tissue Engineering," Honorary Doctorate Lecture, University of Crete, Heraklion, Crete, Greece, September 26, 2018.
 207. "Biomaterials for Tissue Engineering and Regenerative Medicine," National Tsing Hua University, Department of Chemical Engineering, Hsinchu, Taiwan, November 1, 2018.
 208. "Biomaterials for Tissue Engineering and Disease Modeling," University of Houston, Department of Pharmacological and Pharmaceutical Sciences, Houston, Texas, February 21, 2019.
 209. "Biomaterials for Tissue Engineering and Disease Modeling," C. Dayton Riddle Distinguished Lecture, Clemson University, Biomedical Engineering Innovation Campus, Greenville, South Carolina, March 7, 2019.
 210. "Biomaterials for Tissue Engineering and Disease Modeling," Tsinghua University, Department of Mechanical Engineering, Beijing, China, March 19, 2019.
 211. "Biomaterials for Cell and Drug Delivery in Tissue Engineering," Medical and Pharmaceutical Industry Technology and Development Center, New Taipei City, Taiwan, July 4, 2019.
 212. "Biomaterials for Tissue Engineering and Disease Modeling," Aristotle University of Thessaloniki, School of Dentistry, Thessaloniki, Greece, September 25, 2019.
 213. "Tissue Regeneration by Means of Biomaterials," Honorary Doctorate Lecture, Aristotle University of Thessaloniki, Thessaloniki, Greece, September 26, 2019.
 214. "Biomaterials for Tissue Engineering and Disease Modeling," Distinguished Lecture, University of Sydney, Faculty of Engineering, Sydney, Australia, November 22, 2019.
 215. "Biomaterials for Tissue Engineering and Regenerative Medicine" (Virtual Lecture), University of Virginia, Center for Advanced Biomanufacturing, Charlottesville, Virginia, November 9, 2020.
 216. "Biomaterials for Tissue Engineering and Disease Modeling," Alkiviades Ch. Payatakes Distinguished Lecture (Virtual Lecture), Institute of Chemical Engineering Sciences, Patras, Greece, December 14, 2020.
 217. "Biomaterials for Tissue Engineering and Disease Modeling" (Virtual Lecture), University of Massachusetts Lowell, Department of Chemistry, Lowell, Massachusetts, April 15, 2021.
 218. "Biomaterials for Biofabrication and Regenerative Medicine Applications" (Virtual Lecture), International Workshop on Regenerative Medicine, Ulsan National Institute of Science and Technology, Department of Biomedical Engineering, Ulsan, Korea, August 30, 2021.
 219. "Biomaterials for Tissue Engineering and Disease Modeling" (Virtual Lecture), Terasaki Institute for Biomedical Innovation, Los Angeles, California, November 10, 2021.

220. "Biomaterials for Tissue Engineering and Disease Modeling" (Virtual Lecture), William T. Butler Distinguished Lecture, University of Texas Health Science Center at Houston, School of Dentistry, Houston, Texas, December 3, 2021.
221. "Biomaterials for Tissue Engineering and Disease Modeling" (Virtual Lecture), Harvard Medical School, Massachusetts General Hospital, Center for Engineering in Medicine and Surgery, Boston, Massachusetts, January 28, 2022.
222. "Injectable Biomaterials for Tissue Engineering" (Virtual Lecture), Sichuan University, School of Biomedical Engineering, Chengdu, China, May 22, 2022.
223. "Injectable and 3D-Printable Biomaterials for Tissue Engineering," Distinguished Lecture, University of Toronto, Department of Chemical Engineering and Applied Chemistry, Toronto, Canada, January 25, 2023.
224. "Biomaterials for Tissue Engineering and Disease Modeling" (Virtual Lecture), iCANX Talks, Peking University, Beijing, China, February 10, 2023.
225. "Biomaterials for Tissue Engineering and Disease Modeling," M.D. Anderson Cancer Center, Division of Internal Medicine Research Grand Rounds, Houston, Texas, April 26, 2023.
226. "Injectable and 3D-Printable Biomaterials for Tissue Engineering" (Virtual Lecture), Tissue Talks, Columbia University, New York, New York, October 18, 2023.
227. "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Wuzhen Laboratory, Center for Biomaterials and Regenerative Medicine, Wuzhen, China, March 5, 2024.
228. "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Sichuan University, National Engineering Research Center for Biomaterials, Chengdu, China, March 8, 2024.
229. "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," National Center for Nanoscience and Technology, Beijing, China, March 12, 2024.
230. "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," National Medical Products Administration, Beijing, China, March 13, 2024.
231. "Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering Applications," Tsinghua Global Vision Lecture, Weixian College Lectures, Tsinghua University, Beijing, China, March 14, 2024.
232. "Bioengineering at Rice: The Early Days," 25th Anniversary Celebration of the Department of Bioengineering at Rice University, Texas Medical Center Helix Park, Houston, Texas, March 22, 2024.
233. "3D Printing Scaffolds for the Improved Regeneration and Repair of Bone Defects," University of Santiago de Compostela, Institute of Materials (iMATUS), Santiago de Compostela, Spain, April 23, 2024.
234. "Biomaterials for Tissue Engineering," Keynote Lecture, Annual Symposium of Center for Multiscale and Translational Mechanobiology, Boston University, Boston, Massachusetts, November 15, 2024.
235. "Biomaterials for Tissue Engineering," University of Illinois Chicago, Richard and Loan Hill Department of Biomedical Engineering, Chicago, Illinois, January 31, 2025.
236. "Extracellular Matrix-Based Biomaterials for Tissue Engineering," Distinguished Lecture, Tsinghua University, School of Materials Science and Engineering, Beijing, China, March 17, 2025.
237. "Extracellular Matrix-Based Biomaterials for Tissue Engineering," Zhejiang Sci-Tech University, School of Materials Science and Engineering, Hangzhou, China, March 19, 2025.
238. "Extracellular Matrix-Based Biomaterials for Tissue Engineering," Shanghai Jiao Tong University, Shanghai Sixth People's Hospital, Department of Sports Medicine, Shanghai, China, March 21, 2025.

Chair of Meetings

1. Materials Research Society Fall Meeting (Forty-One Symposia), Boston, Massachusetts, November 27 - December 1, 2000.
2. Aegean Conference on Tissue Engineering Science (Eight Sessions), Myconos, Greece, May 19-23, 2002.
3. Engineering in Medicine and Biology Society - Biomedical Engineering Society Joint Conference (Two Hundred Fourteen Sessions), Houston, Texas, October 23-26, 2002.
4. Second Aegean Conference on Tissue Engineering (Twelve Sessions), Heraklion, Crete, Greece, May 22-27, 2005.
5. Annual Meeting and Exposition of Controlled Release Society (Forty-Four Sessions), Vienna, Austria, July 22-26, 2006.

6. A Celebration of Excellence in Scientific and Engineering Achievement on the Occasion of Nicholas Peppas' 60th Birthday (Four Sessions), Austin, Texas, August 8, 2008.
7. Third Aegean Conference on Tissue Engineering (Twelve Sessions), Rhodes, Greece, September 21-26, 2008.
8. First International Conference on Tissue Engineering and Stem Cell Research Using Nanomaterials – NANOBIO 2009 (Eleven Sessions), Kochi, India, February 17-19, 2009.
9. Armed Forces Institute of Regenerative Medicine Standardization Meeting (Six Sessions), Atlanta, Georgia, November 19-20, 2009.
10. Fourth Aegean Conference on Tissue Engineering (Twelve Sessions), Chania, Crete, Greece, May 31-June 5, 2011.
11. Tissue Engineering and Regenerative Medicine International Society-North America Annual Conference and Exposition (Forty-One Sessions), Houston, Texas, December 11-14, 2011.
12. Second International Conference on Nanotechnology at the Bio-Medical Interface – NANOBIO 2012 (Eleven Sessions), Kochi, India, February 21-23, 2012.
13. International Conference on Regenerative Biomedical Materials (Eleven Sessions), Wuhan, China, June 2-6, 2013.
14. Fifth Aegean Conference on Tissue Engineering (Twelve Sessions), Kos, Greece, June 20-25, 2014.
15. Second International Conference on Regenerative Biomedical Materials (Fourteen Sessions), Wuhan, China, June 4-8, 2015.
16. Sixth Aegean Conference on Tissue Engineering in Conjunction with Third International Conference on Regenerative Biomedical Materials (Thirteen Sessions), Heraklion, Crete, Greece, June 14-19, 2017.
17. Second International Conference on Tissue Engineering and Regenerative Medicine (Eight Sessions), Vanderbijlpark, South Africa, July 26-30, 2017.
18. Fourth International Conference on Regenerative Biomedical Materials (Sixteen Sessions), Wuhan, China, June 12-16, 2019.
19. Seventh Aegean Conference on Tissue Engineering in Conjunction with Fifth International Conference on Regenerative Biomedical Materials (Nine Sessions), Ioannina, Greece, May 26-31, 2022.
20. Eighth Aegean Conference on Tissue Engineering (Nine Sessions), Sissi, Crete, Greece, May 25-30, 2025.

Organizer of Topical Conferences

1. "Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering" (Thirteen Sessions), Annual AIChE Meeting, Los Angeles, California, November 17-19, 1997.

Organizer of Symposia

1. "Tissue Engineering" (Two Sessions), 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
2. "Preparation and Physicochemical Characterization of Hydrogels" (Four Sessions), National ACS Meeting, Denver, Colorado, March 31 - April 1, 1993.
3. "Biomaterials for Drug and Cell Delivery" (Five Sessions), MRS Fall Meeting, Boston, Massachusetts, November 29 - December 1, 1993.
4. "First International Congress on Cellular Therapy & Tissue Engineering" (Six Sessions), BioEast'95, Washington, D.C., January 9-10, 1995.
5. "Polymers in Medicine and Pharmacy" (Six Sessions), MRS Spring Meeting, San Francisco, California, April 17-19, 1995.
6. "Cells at Interfaces" (Four Sessions), National ACS Meeting, San Francisco, California, April 16-17, 1997.
7. "Biomaterials Regulating Cell Function and Tissue Development" (Three Sessions), MRS Spring Meeting, San Francisco, California, April 13-14, 1998.
8. "ACS Award in Polymer Chemistry Honoring Robert Langer: Synthesis and Characterization of Polymers for Biomaterials and Drug Delivery Carriers" (Two Sessions), National ACS Meeting, Anaheim, California, March 22, 1999.

9. "Frontiers of Materials Research" (Four Sessions), MRS Fall Meeting, Boston, Massachusetts, November 27 - December 1, 2000.
10. "Tissue Engineering" (Thirteen Sessions), Annual BMES Fall Meeting, Durham, North Carolina, October 4-7, 2001.
11. "Molecular, Cellular and Tissue Engineering" (Four Sessions), 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.
12. "Advances in Material Design for Regenerative Medicine, Drug Delivery, and Targeting/Imaging" (Thirteen Sessions), MRS Fall Meeting, Boston, Massachusetts, December 1-3, 2008.
13. "Clinical Aspects of Tissue Engineering" (One Session), 3rd World Congress of TERMIS, Vienna, Austria, September 8, 2012.
14. "Multi-Scale Approaches for Complex Tissue Generation" (One Session), 5th World Congress of TERMIS, Kyoto, Japan, September 7, 2018.

Organizer of Workshops

1. "Tissue Engineering" (Two Sessions), 5th World Biomaterials Congress, Toronto, Canada, May 29, 1996.
2. "Bioartificial Tissues," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
3. "Biodegradable Polymers - From Monomer to the Clinic," 6th World Biomaterials Congress, Kamuela, Hawaii, May 16, 2000.
4. "Tissue Engineering: The Essential Elements," 29th Annual Meeting of the Society For Biomaterials, Reno, Nevada, April 30, 2003.
5. "Nanobiomaterials Applications in Orthopaedics," 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, Illinois, March 20, 2006.
6. "How to Write a Good Review Paper," 5th World Congress of TERMIS, Kyoto, Japan, September 5, 2018.

Chair of Sessions

1. "Biomaterials for Organ Regeneration," Annual AIChE Meeting, Los Angeles, California, November 18, 1991.
2. "Cell-Based Therapies and Artificial Organs," Annual AIChE Meeting, Miami Beach, Florida, November 4, 1992.
3. "Tissue Engineering I: Cell Adhesion," 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
4. "Tissue Engineering II: Tissue Replacement and Remodeling," 11th Annual HSEMB Conference, Houston, Texas, February 11, 1993.
5. "Preparation and Physicochemical Characterization of Hydrogels: Structure," National ACS Meeting, Denver, Colorado, March 31, 1993.
6. "Preparation and Physicochemical Characterization of Hydrogels: Structure and Properties," National ACS Meeting, Denver, Colorado, April 1, 1993.
7. "Preparation and Physicochemical Characterization of Hydrogels: Structure and Applications," National ACS Meeting, Denver, Colorado, April 1, 1993.
8. "Biomaterials Processing," The Monte Verità Conference 1993 on Biocompatible Materials Systems, Ascona, Switzerland, October 12, 1993.
9. "Biomaterials Posters," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
10. "Biomaterials for Repair or Replacement of Tissues," Annual AIChE Meeting, St. Louis, Missouri, November 8, 1993.
11. "Tissue Scaffolding and Regeneration," MRS Fall Meeting, Boston, Massachusetts, November 29, 1993.
12. "Receptor-Mediated Cell Adhesion, Cell-Biomaterial Interactions, and Cell Encapsulation," MRS Fall Meeting, Boston, Massachusetts, November 30, 1993.
13. "Biomaterials Characterization and Orthopedic Biomaterials," MRS Fall Meeting, Boston, Massachusetts, December 1, 1993.
14. "Biomaterials," 12th Annual HSEMB Conference, Houston, Texas, February 10, 1994.
15. "Tissue Engineering," 12th Annual HSEMB Conference, Houston, Texas, February 11, 1994.

16. "Artificial Organs," 20th Annual Society For Biomaterials Meeting, Boston, Massachusetts, April 9, 1994.
17. "Cell Transplantation to Engineer Organs," Annual BMES Fall Meeting, Tempe, Arizona, October 16, 1994.
18. "Cell and Tissue Interfaces with Biomaterials," Annual AIChE Meeting, San Francisco, California, November 15, 1994.
19. "Cellular Engineering I," 13th Annual HSEMB Conference, Houston, Texas, February 16, 1995.
20. "Hybrid Artificial Organs," 21st Annual Society For Biomaterials Meeting, San Francisco, California, March 20, 1995.
21. "Polymers for Orthopaedic Applications," MRS Spring Meeting, San Francisco, California, April 17, 1995.
22. "Polymers for Tissue Engineering," MRS Spring Meeting, San Francisco, California, April 18, 1995.
23. "Cell and Tissue Engineering - Biopolymer Cell Supports," ASME Summer Bioengineering Conference, Beaver Creek, Colorado, June 29, 1995.
24. "Allograft-, Autograft- and Xenograft-Based Matrices," International Business Communications Conference on Tissue Engineering and Repair, Washington, D.C., August 9, 1995.
25. "Cellular and Tissue Engineering - Hybrid Artificial Organs," Annual BMES Fall Meeting, Boston, Massachusetts, October 8, 1995.
26. "Mammalian Cell Encapsulation," Annual AIChE Meeting, Miami Beach, Florida, November 16, 1995.
27. "Biomaterials," 14th Annual HSEMB Conference, Houston, Texas, February 8, 1996.
28. "Tissue Engineering III," 5th World Biomaterials Congress, Toronto, Canada, June 2, 1996.
29. "Tissue Engineering," 5th World Congress of Chemical Engineering, San Diego, California, July 16, 1996.
30. "Hydrogels and Extracellular Matrix Gels," Annual AIChE Meeting, Chicago, Illinois, November 15, 1996.
31. "Material Sciences," Inaugural TES Meeting, Orlando, Florida, December 14, 1996.
32. "Cellular Engineering II: Smooth Muscle Cells," 15th Annual HSEMB Conference, Houston, Texas, February 14, 1997.
33. "Novel Polymers and Peptide-Incorporated Polymers," National ACS Meeting, San Francisco, California, April 17, 1997.
34. "Drug Delivery," 23rd Annual Society For Biomaterials Meeting, New Orleans, Louisiana, May 3, 1997.
35. "Fabrication Methods and Mechanical Properties," ASME Summer Bioengineering Conference, Sunriver, Oregon, June 14, 1997.
36. "Tissue Engineering," 1st Smith & Nephew International Symposium on Advances in Tissue Engineering and Biomaterials, York, England, July 22, 1997.
37. "Materials and Fabrication Methods for Tissue Engineering Scaffolds," Annual AIChE Meeting, Los Angeles, California, November 17, 1997.
38. "Biomaterials," Annual AIChE Meeting, Los Angeles, California, November 18, 1997.
39. "Tissue Engineering #1," 17th Southern Biomedical Engineering Conference, San Antonio, Texas, February 7, 1998.
40. "Biomaterials in Tissue Engineering," MRS Spring Meeting, San Francisco, California, April 13, 1998.
41. "New Developments in Cartilage, Skin and Bone Engineering," 3rd International Business Communications Industry Symposium on Advancements in Tissue Engineering, Boston, Massachusetts, June 8, 1998.
42. "Tissue Engineering II," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998.
43. "Biomaterial Surface Interactions," Annual AIChE Meeting, Miami Beach, Florida, November 17, 1998.
44. "ACS Award in Polymer Chemistry Honoring Robert Langer: Synthesis and Characterization of Polymers for Biomaterials and Drug Delivery Carriers," National ACS Meeting, Anaheim, California, March 22, 1999.
45. "Polymer Scaffolding for Tissue Engineering Symposium I," 25th Annual Meeting of the Society For Biomaterials, Providence, Rhode Island, April 29, 1999.
46. "Tissue Engineering," 4th Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea, September 13, 1999.

47. "Biomaterials II," 4th Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea, September 13, 1999.
48. "Targeting Pharmacologic Agents to Sites of Early Lesions," 2000 Research Initiatives Conference in Vascular Disease on the Biology of Vascular Interventions-Minimally Invasive Approaches to Vascular Disease, Bethesda, Maryland, February 18, 2000.
49. "Matrices for Mineralized Tissue Engineering," 6th World Biomaterials Congress, Kamuela, Hawaii, May 19, 2000.
50. "Biomaterials," 19th Annual HSEMB Conference, Houston, Texas, February 9, 2001.
51. "Future Prospects of Biomaterials III," 10th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 22, 2001.
52. "Scaffolding Materials for Bone Tissue Engineering Symposium II," 27th Annual Meeting of the Society For Biomaterials, Saint Paul, Minnesota, April 29, 2001.
53. "Orthopedic Materials," Annual BMES Fall Meeting, Durham, North Carolina, October 5, 2001.
54. "Gene Delivery," American Association of Pharmaceutical Scientists Workshop on Critical Issues in the Design and Applications of Polymeric Biomaterials in Drug Delivery, Arlington, Virginia, February 28, 2002.
55. "New Challenges for Biodegradable Polymers in Substitution and Regeneration Medicine II," 28th Annual Meeting of the Society For Biomaterials, Tampa, Florida, April 26, 2002.
56. "Scaffolds, Carriers, and Other Delivery Vehicles," Aegean Conference on Tissue Engineering Science, Mykonos, Greece, May 21, 2002.
57. "Delivery Systems for BMPs," 4th International Conference on Bone Morphogenetic Proteins, Sacramento, California, October 19, 2002.
58. "Growing the Tissue Engineering Industry," 2nd EMBS-BMES Joint Conference, Houston, Texas, October 23, 2002.
59. "Tissue Engineering," Pittsburgh Bone Symposium 2003, Pittsburgh, Pennsylvania, August 22, 2003.
60. "Scaffolds," 6th Annual International Conference and Exposition of Tissue Engineering Society International, Orlando, Florida, December 12, 2003.
61. "Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering: Tutorial Session II," Annual AIChE Meeting, Austin, Texas, November 10, 2004.
62. "Engineering Complex Tissues – Vascularization, Tissue Interfaces, Gradients," Tissue Engineering: The Next Generation Workshop, Cambridge, Massachusetts, May 3, 2005.
63. "Bioreactor and Processing Technologies," 2nd Aegean Conference on Tissue Engineering, Heraklion, Crete, Greece, May 24, 2005.
64. "Vascular and Tissue Engineering Systems," 32nd International Symposium on Controlled Release of Bioactive Materials, Miami Beach, Florida, June 20, 2005.
65. "Tissue Engineering 2," 3rd International Conference on Materials for Advanced Technologies, Singapore, July 8, 2005.
66. "Tissue Engineering 3," 3rd International Conference on Materials for Advanced Technologies, Singapore, July 8, 2005.
67. "Converging Technologies and Their Impact on Medical Devices," Texas/United Kingdom Symposium on Medicine and Medical Devices, Rice University, Houston, Texas, October 10, 2005.
68. "Keynote Speech Session-1," 8th Annual Meeting of Tissue Engineering Society International, Shanghai, China, October 22, 2005.
69. "Scaffolds for Tissue Engineering," 1st Marie Curie Cutting Edge InVENTS Conference on New Developments on Polymers for Tissue Engineering, Replacement and Regeneration, Madeira, Portugal, June 2, 2006.
70. "Tissue Engineering," 33rd Annual Meeting and Exposition of Controlled Release Society, Vienna, Austria, July 24, 2006.
71. "Tissue Engineered Products for Clinical Applications I," 32nd Annual Meeting of the Society For Biomaterials, Chicago, Illinois, April 19, 2007.
72. "Cell Integration into Natural and Synthetic Matrices," Tissue Engineering and Regenerate Medicine International Society – North America Conference and Exposition, Toronto, Canada, June 14, 2007.
73. "Molecular, Cellular and Tissue Engineering I: Accomplishments and Perspectives," 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.
74. "Molecular, Cellular and Tissue Engineering II: Bioactive Molecules and Drug Delivery Systems," 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.

75. "Molecular, Cellular and Tissue Engineering III: Biomimetic Materials and Scaffolds," 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.
76. "Molecular, Cellular and Tissue Engineering IV: Cell-Based Strategies," 25th Annual HSEMB Conference, Houston, Texas, February 8, 2008.
77. "Biomaterials for Tissue Engineering and Regenerative Medicine," 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008.
78. "Plenary 4," 8th World Biomaterials Congress, Amsterdam, The Netherlands, June 1, 2008.
79. "Growth Factors and Soluble Mediators 2," 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, September 24, 2008.
80. "Advanced Biomaterials II," MRS Fall Meeting, Boston, Massachusetts, December 1, 2008.
81. "Tissue Engineering," MRS Fall Meeting, Boston, Massachusetts, December 3, 2008.
82. "Bone Repair," First Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 14, 2009.
83. "Craniofacial Reconstruction," First Annual Armed Forces Institute of Regenerative Medicine Conference, St. Petersburg, Florida, January 15, 2009.
84. "Antibacterial Biomaterials," 8th World Biomaterials Congress, Chengdu, China, June 2, 2012.
85. "Controlled Drug Release," 3rd World Congress of TERMIS, Vienna, Austria, September 7, 2012.
86. "Plenary Lecture," 3rd World Congress of TERMIS, Vienna, Austria, September 7, 2012.
87. "Polymeric Biomaterials (1)," 30th Annual Meeting of the Canadian Biomaterials Society, Ottawa, Ontario, May 30, 2013.
88. "New Concept Biomaterials: Innovation, Translation, and Global Cooperation," International Conference on Regenerative Biomedical Materials, Wuhan, China, June 4, 2013.
89. "Tissue Engineering," Mesenchymal Stem Cell (MSC) Conference, Cleveland, Ohio, August 20, 2013.
90. "Tissue Engineering Journal Symposium," TERMIS-Asia Pacific Annual Conference, Shanghai-Wuzhen, China, October 25, 2013.
91. "Travel Award Recognition," 5th Aegean Conference on Tissue Engineering, Kos, Greece, June 22, 2014.
92. "Rapid Fire Session 2," 5th Aegean Conference on Tissue Engineering, Kos, Greece, June 22, 2014.
93. "Tumor Development and Cancer," TERMIS-Americas Annual Conference and Exposition, Washington, D.C., December 16, 2014.
94. "Brainstorm Session," Second International Conference on Regenerative Biomedical Materials, Wuhan, China, June 6, 2015.
95. "Systemic Bone Diseases – Secondary Osteoporosis," International Bone-Tissue-Engineering Congress, Stuttgart, Germany, October 8, 2015.
96. "Biodesign for Function," Seventh International Bioengineering Congress, Izmir, Turkey, November 21, 2015.
97. "Nano-Life 1," International Center for Materials Nanoarchitectonics (MANA) International Symposium, Tsukuba, Japan, March 11, 2016.
98. "Injectable Biomaterials for Cell Therapy and Tissue Engineering," 10th World Biomaterials Congress, Montreal, Canada, May 20, 2016.
99. "Stem Cells and Tissue Engineering," 2nd International Conference on Tissue Engineering and Regenerative Medicine, Vanderbijlpark, South Africa, July 29, 2017.
100. "Biomimetics/Tissue Engineering," Emerging Nanotechnology and Drug Delivery Applications for Cancer Conference, Oklahoma City, Oklahoma, December 6, 2018.
101. "Tissue Engineering – Building a Stronger Scientific Community," TERMIS-Europe Meeting, Rhodes, Greece, May 28, 2019.
102. "Opening Ceremony," Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China, June 13, 2019.
103. "Plenary Lectures," Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China, June 13, 2019.
104. "Tissue Engineering Technologies - 3D Printing and Biopatterning," Seventh Aegean Conference on Tissue Engineering in Conjunction with Fifth International Conference on Regenerative Biomedical Materials, Ioannina, Greece, May 30, 2022.
105. "In Honor of the 2021 Recipient of the Warren K. Lewis Award – Nicholas Peppas – Part I," Annual AIChE Meeting, Phoenix, Arizona, November 15, 2022.

106. "In Honor of the 2021 Recipient of the Warren K. Lewis Award – Nicholas Peppas – Part II," Annual AIChE Meeting, Phoenix, Arizona, November 15, 2022.
107. "International Collaborations in TERM," 7th World Congress of TERMIS, Seattle, Washington, June 27, 2024.
108. "Celebrating 30 Years of Tissue Engineering," 7th World Congress of TERMIS, Seattle, Washington, June 27, 2024.
109. "Meet the Editor," 7th World Congress of TERMIS, Seattle, Washington, June 28, 2024.
110. "A Tribute to Dr. John Jansen," Eighth Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, May 26, 2025.
111. "Musculoskeletal Tissue Regeneration," Eighth Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, May 28, 2025.
112. "Plenary Talks," Second BMEMat-Advanced Materials Joint Symposium and International Meeting on Biomedical Engineering, Jinan, China, July 17, 2025.

Participant of Panels

1. "Biodesign and Entrepreneurship," Seventh International Bioengineering Congress, Izmir, Turkey, November 21, 2015.
2. "Meeting with Journal Editors I," Fourth International Conference on Regenerative Biomedical Materials, Wuhan, China, June 13, 2019.
3. "Tissue Engineering and TERMIS Leadership Session: The Importance of Scientific Rigor & Integrity," TERMIS-Americas Annual Conference and Exhibition, Orlando, Florida, December 4, 2019.
4. "Round Table on Regeneration in Dentistry," 40th Anniversary Panhellenic Dental Congress, Athens, Greece, October 7, 2022.
5. "Mary Ann Liebert, Inc. Publishers of Tissue Engineering, Parts A, B and C Session: Exploring Healthcare Disparities and Solutions-Driven Approaches in Tissue Engineering and Regenerative Medicine," TERMIS-Americas Annual Conference and Exhibition, Boston, Massachusetts, April 12, 2023.
6. "Philosophy and Ethics in TERM," 7th World Congress of TERMIS, Seattle, Washington, June 28, 2024.

Reviewer

Reviewer of Research Proposals:

American Chemical Society - Petroleum Research Fund
 Cornell University - Morgan Seed Grant Program for Collaborative Multidisciplinary Research in Tissue Engineering
 Department of Defense
 Dunhill Medical Trust
 Louisiana Board of Regents
 Massachusetts Institute of Technology - Sea Grant College Program
 National Institutes of Health
 National Science Foundation
 National Sciences and Engineering Research Council of Canada
 National University of Singapore - Faculty of Science
 North Carolina Biotechnology Center
 Pittsburgh Tissue Engineering Initiative
 Swiss National Science Foundation
 United States-Israel Binational Science Foundation
 University of Maryland - Sea Grant College Program
 University of Michigan - Center for Biomedical Engineering Research
 University of Michigan - Center for Biorestitution of Oral Health
 The University of Texas Health Science Center at San Antonio - The Aging Research and Education Center
 The Whitaker Foundation

Reviewer of Book Proposals:

John Wiley & Sons, Inc.

Reviewer of Manuscripts:

ACS Biomaterials Science and Engineering
 ACS Nano
 AIChE Journal
 Applied Biomaterials
 Bioactive Materials
 Biochemical Pharmacology
 Bioconjugate Chemistry
 Biomacromolecules
 Biomaterials
 BioTechniques
 Biotechnology and Bioengineering
 Calcified Tissue International
 Cells and Materials
 Cell Transplantation
 Chemical Engineering Science
 Chemical Reviews
 Chemistry of Materials
 Colloids and Surfaces
 Computational Polymer Science
 Critical Reviews in Oral Biology & Medicine
 Current Eye Research
 Current Opinion in Biomedical Engineering
 Engineering
 Gene Therapy
 Human Gene Therapy
 IMA Journal of Mathematics Applied in Medicine and Biology
 International Journal of Nanomedicine
 International Journal of Pharmaceutics
 Journal of Applied Physiology
 Journal of Applied Polymer Science
 Journal of Biological Chemistry
 Journal of Biomaterials Science, Polymer Edition
 Journal of Biomedical Materials Research
 Journal of Biotechnology
 Journal of Colloid and Interface Science
 Journal of Controlled Release
 Journal of Dental Research
 Journal of Investigative Dermatology
 Journal of Materials Chemistry B
 Journal of Membrane Science
 Journal of Orthopaedic Research
 Journal of Pharmaceutical Sciences
 Journal of Physical Chemistry
 Journal of Polymer Science, Part A: Polymer Chemistry
 Journal of Polymer Science, Part B: Polymer Physics
 Journal of Theoretical Biology
 Kirk-Othmer Encyclopedia of Chemical Technology
 Langmuir
 Macromolecules
 Nature Biotechnology
 Nature Medicine
 Pharmaceutical Research
 Polymer

Polymer Engineering and Science
 Polymer International
 Proceedings of the National Academy of Sciences USA
 Public Library of Science Medicine
 Regenerative Biomaterials
 Science
 Science Advances
 Stem Cells
 Surface Science
 Trends in Biotechnology
 Trends in Molecular Medicine

Reviewer of Books:

European Journal of Pharmaceutics and Biopharmaceutics
 Journal of Controlled Release
 Polymer News

Organizer of Continuing-Education Courses

1. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 2-6, 1993.
2. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 1-5, 1994.
3. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 1-5, 1995.
4. "Tissue Engineering: Current Challenges in Discovery, Development and Review," Sponsored by the US Food and Drug Administration, Rockville, Maryland, February 20, March 12, 26, April 2, 9, and May 21, 1996.
5. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 5-9, 1996.
6. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, Dallas, Texas, November 12, 1996.
7. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-15, 1997.
8. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, San Francisco, California, September 23, 1997.
9. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 17-21, 1998.
10. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," International Confederation for Plastic, Reconstructive and Aesthetic Surgery Congress, San Francisco, California, June 30, 1999.
11. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 22-26, 1999.
12. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, New Orleans, Louisiana, October 26, 1999.
13. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-17, 2000.
14. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, Los Angeles, California, October 17, 2000.
15. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 15-19, 2001.
16. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2002.
17. "Introduction to Tissue Engineering: A Glimpse into the Future," American Society of Plastic Surgeons Annual Scientific Meeting, San Antonio, Texas, November 4, 2002.
18. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2003.
19. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2004.
20. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2005.

21. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 16-19, 2006.
22. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 15-18, 2007.
23. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2008.
24. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 12-15, 2009.
25. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2010.
26. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2011.
27. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 8-11, 2012.
28. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2013.
29. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2014.
30. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 12-15, 2015.
31. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2016.
32. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 9-12, 2017.
33. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 8-11, 2018.
34. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2019.
35. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2021.
36. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2022.
37. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 9-12, 2023.
38. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2024.
39. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2025.

Lecturer of Continuing-Education Courses

1. "Polymer Science and Technology," Sponsored by Chemical Process Engineering Research Institute, Thessaloniki, Greece, June 1991.
2. "Frontiers in Polymer Science: Polymer Preparation, Properties and Structure," Sponsored by Purdue University, Indianapolis, Indiana, June 22-26, 1992.
3. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 2-6, 1993.
4. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 1-5, 1994.
5. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 1-5, 1995.
6. "Tissue Engineering: Current Challenges in Discovery, Development and Review," Sponsored by the US Food and Drug Administration, Rockville, Maryland, March 26, 1996.
7. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 5-9, 1996.
8. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, Dallas, Texas, November 12, 1996.
9. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-15, 1997.

10. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, San Francisco, California, September 23, 1997.
11. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 17-21, 1998.
12. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," International Confederation for Plastic, Reconstructive and Aesthetic Surgery Congress, San Francisco, California, June 30, 1999.
13. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 22-26, 1999.
14. "Biodegradable Polymers for Tissue Engineering," 4th Asia-Pacific Conference on Medical and Biological Engineering, Seoul, Korea, September 12, 1999.
15. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, New Orleans, Louisiana, October 26, 1999.
16. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-17, 2000.
17. "Tissue Engineering: A Glimpse into the Future of Plastic Surgery," American Society of Plastic Surgeons Annual Scientific Meeting, Los Angeles, California, October 17, 2000.
18. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 15-19, 2001.
19. "Materials for Tissue Engineering," Annual BMES Fall Meeting, Durham, North Carolina, October 4, 2001.
20. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 29-June 1, 2002.
21. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2002.
22. "Introduction to Tissue Engineering: A Glimpse into the Future," American Society of Plastic Surgeons Annual Scientific Meeting, San Antonio, Texas, November 4, 2002.
23. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 27-31, 2003.
24. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2003.
25. "Current Progress in Tissue Engineering," Sponsored by Harvard Medical School, Boston, Massachusetts, October 2-3, 2003.
26. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 17-21, 2004.
27. "Summer School on Emerging Technologies in Biomedicine," Sponsored by the University of Patras, Patras, Greece, June 20-25, 2004.
28. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2004.
29. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 31-June 3, 2005.
30. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2005.
31. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 22-26, 2006.
32. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 16-19, 2006.
33. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 21-25, 2007.
34. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 15-18, 2007.
35. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 19-23, 2008.
36. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2008.
37. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 18-21, 2009.

38. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 12-15, 2009.
39. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 17-20, 2010.
40. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2010.
41. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 16-19, 2011.
42. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2011.
43. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 21-23, 2012.
44. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 8-11, 2012.
45. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 20-22, 2013.
46. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2013.
47. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 12-14, 2014.
48. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2014.
49. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 12-14, 2015.
50. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 12-15, 2015.
51. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 24-26, 2016.
52. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2016.
53. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 23-25, 2017.
54. "Regenerative Medicine Essentials," Sponsored by Wake Forest University, Winston-Salem, North Carolina, June 5-9, 2017.
55. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 9-12, 2017.
56. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 22-24, 2018.
57. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 8-11, 2018.
58. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 21-23, 2019.
59. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2019.
60. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, August 10-11, 2020.
61. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 19-20, 2021.
62. "Regenerative Medicine Essentials," Sponsored by Wake Forest University, Winston-Salem, North Carolina, June 14-16, 2021.
63. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 11-14, 2021.
64. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 25-26, 2022.
65. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 10-13, 2022.

66. "Cell-Based Therapies and Tissue Engineering," Sponsored by Case Western Reserve University, Cleveland, Ohio, May 23-24, 2023.
67. "Regenerative Medicine Essentials," Sponsored by Wake Forest University, Winston-Salem, North Carolina, June 5-9, 2023.
68. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 9-12, 2023.
69. "Regenerative Medicine Essentials," Sponsored by Wake Forest University, Winston-Salem, North Carolina, June 11-13, 2024.
70. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 14-17, 2024.
71. "Advances in Tissue Engineering," Sponsored by Rice University, Houston, Texas, August 13-16, 2025.

Research Grants (Total Costs)

Principal Investigator

1. T.N. Law Professorship in Bioengineering (1992-96)
\$ 150,000
2. Rice University - Biomedical Research Support Grant (1992-93)
"Tissue Engineering by Cell Transplantation"
\$ 4,800
3. National Science Foundation - Research Equipment Grant (1992-93)
"Gel Permeation Chromatography System for Bioengineering Research"
\$ 26,567 (with Drs. J.V. Shanks and K. Zygorakis)
4. Rice University - Biomedical Research Support Grant (1992-93)
"UV/VIS System for Research in Biosciences and Bioengineering"
\$ 3,100 (with Drs. J.V. Shanks and K. Zygorakis)
5. Orthopedic Research and Education Foundation (1993-95)
"A Temporary Replacement for Trabecular Bone: Biodegradable Particulate Composites with Osteoblast Transplantation for Orthopaedic Applications"
\$ 97,277 (with Dr. M.J. Yaszemski)
6. Texas Biotechnology Corporation, Houston, Texas (1993-95)
"Bioresorbable Polymer Delivery of Antisense Oligonucleotides"
\$ 53,068
7. American Cyanamid Company, Princeton, New Jersey (1994-95)
"Controlled Release Systems for Bioactive Macromolecules"
\$ 5,000
8. The Whitaker Foundation (1994-97)
"Polymeric Delivery Systems for Antisense Oligonucleotides"
\$ 179,617
9. Johnson&Johnson Medical (1994-95)
"Biodegradable Polymer Foams for Dermal Tissue Repair"
\$ 18,834
10. C.A. Garcia Fund for Eye Research (1995-96)
"Retinal Pigment Epithelium Regeneration"
\$ 19,503

11. National Retinitis Pigmentosa Foundation (1995-98)
"Mechanical and Immunological Phenomena Affecting Survival of Transplanted Retinal Pigment Epithelial Cells"
\$ 113,208 (with Drs. D. Lahiri-Munir and C.A. Garcia)
12. National Aeronautics and Space Administration (1996-2001)
"Mechanical Load Effects on Bone Formation"
\$ 424,690 (with Dr. P. Whitson)
13. National Institutes of Health - FIRST Award (1996-2001)
"Bone Regeneration by Osteoblast Transplantation"
\$ 523,250
14. National Aeronautics and Space Administration (1996-97)
"Analysis of Mechanical Loading Effects on Bone Formation and Remodeling"
\$ 22,000
15. National Institutes of Health (1996-2001)
"Injectable Biomaterials for Bone Tissue Engineering"
\$ 729,637
16. Defense Advanced Research Projects Agency (1997-99)
"Biomimetic Materials for Pathogen Neutralization"
\$ 779,612
17. National Institutes of Health (1998-2003)
"*In Situ* Polymerizable Gels for Dental Tissue Engineering"
\$ 1,379,306
18. Chrysalis BioTechnology, Galveston, Texas (1998-99)
"Microparticle Biodegradable Polymeric Delivery Systems for Bioactive Molecules"
\$ 17,940
19. Molecular Geodesics, Boston, Massachusetts (1999-2000)
"Biomimetic Materials for Pathogen Neutralization"
\$ 12,400
20. National Institutes of Health (1999-2004)
"Strength and Resorption of Biodegradable Skull Implants"
\$ 511,435
21. Toray Industries, Shiga, Japan (2000-02)
"Development of Biocompatible Materials"
\$ 20,000
22. Chrysalis BioTechnology, Galveston, Texas (2001-02)
"Controlled Release Systems for Bioactive Molecules"
\$ 30,000
23. Desmogen, Bellaire, Texas (2001-02)
"Biomaterials Development for Vertebroplasty"
\$ 100,000
24. National Science Foundation (2001-06)
"Nanocomposites for Bone Replacement"

\$ 260,980

25. Advanced Technology Program of the State of Texas (2002-03)
 "Novel Scaffold Design and Evaluation Technique for Engineering Bone Replacement Tissue"
 \$ 187,500 (with Dr. M.A.K. Liebschner)
26. National Institutes of Health (2002-07)
 "Bone Regeneration by Osteoblast Transplantation"
 \$ 1,163,237
27. Bausch & Lomb, Rochester, New York (2002-03)
 "Injectable Ocular Drug Delivery Systems"
 \$ 100,053
28. National Institutes of Health (2003-08)
 "Injectable Cellular Composites for Cartilage Engineering"
 \$ 1,681,524
29. Bausch & Lomb, Rochester, New York (2003-04)
 "Injectable Ocular Drug Delivery Systems"
 \$ 100,000
30. National Institutes of Health (2004-09)
 "Promotion of Alveolar Socket Healing with Biopolymers"
 \$ 1,528,360
31. Bausch & Lomb, Rochester, New York (2004-05)
 "Ocular Drug Delivery Systems"
 \$ 100,000
32. National Institutes of Health (2005-10)
 "Tissue Engineering of Hematopoietic Bone"
 \$ 240,503
33. Bausch & Lomb, Rochester, New York (2005)
 "Ocular Drug Delivery Systems"
 \$ 30,000
34. Dan L. Duncan Cancer Center, Houston, Texas (2006-07)
 "Maintenance of Ovarian Reserve after Cancer Chemotherapy"
 \$ 80,000
35. Rice University - International Collaboration Travel Fund (2007)
 "Global Approaches in Tissue Engineering"
 \$ 9,800
36. National Institutes of Health (2008-13)
 "*In Situ* Hardening Cellular Constructs for Craniofacial Bone Regeneration"
 \$ 1,648,295
37. Department of Defense (2008-13)
 "Antibiotic Releasing Space Maintainer and Prefabricated Vascularized Bone Flap"
 \$ 1,998,009 (with Dr. F.K. Kasper)
38. Rice University - International Collaboration Travel Fund (2008)
 "Manufacturing and Scale-Up Towards Clinical Treatments of Craniofacial Trauma: A Collaborative

Effort Between Rice University and the National Tissue Engineering Center of China”
\$ 7,000

39. SpinalCyte, Houston, Texas (2008-2010)
“Repair of Cartilage Using an *In Vitro* Bioreactor”
\$ 300,000
40. Celthera, Hopkinton, Massachusetts (2008-2009)
“Bone Regeneration Using Scaffold-Reinforced Hydrogel/Whole Marrow Constructs”
\$ 65,000
41. National Institutes of Health (2008-10)
“Regulated Osteochondrogenesis of Human Mesenchymal Stem Cells Using Gene Delivery”
\$ 360,272
42. Defense Advanced Research Projects Agency (2008-10)
“BioNanoScaffolds (BNS) for Post-Traumatic Osteoregeneration”
\$ 1,200,000
43. National Institutes of Health (2009-14)
“Flow Perfusion Bioreactor Fabrication of Bioactive Polymer/ECM Hybrid Constructs”
\$ 1,667,145
44. Indo-US Science and Technology Forum (2010-12)
“Cell-Targeted Diagnostics and Therapy Using Nanomaterials”
\$ 96,642 (with Dr. S. Nair)
45. National Institutes of Health (2010-15)
“Injectable Cellular Composites for Cartilage Engineering”
\$ 1,670,915 (with Dr. F.K. Kasper)
46. Department of Defense (2013-20)
“Space Maintenance, Wound Optimization, Osseous Regeneration and Reconstruction of Craniomaxillofacial Defects”
\$ 1,500,000
47. Department of Defense (2013-20)
“Development of Resorbable Calcium Phosphate Cement for Regeneration of Cranial and Midface Bones”
\$ 305,035
48. National Institutes of Health (2014-19)
“Three-Dimensional Model of Human Ewing Sarcoma”
\$ 1,627,555 (with Drs. F.K. Kasper and J.A. Ludwig)
49. John S. Dunn Foundation (2015-16)
“Local Dual Delivery of Antifungals and Growth Factors for Treatment of Necrotizing Invasive Mold Infections”
\$ 98,000 (with Dr. D.P. Kontoyiannis)
50. Osteo Science Foundation (2015-16)
“Effects of Synthetic Graft Versus Autograft in the Generation of Autologous Free Tissue Flaps”
\$ 99,990 (with Dr. M.E. Wong)
51. National Institutes of Health (2015-17)
“An Optogenetic Approach to Bone Tissue Engineering”

\$ 355,850 (with Dr. J.J. Tabor)

52. National Institutes of Health (2015-20)
"In Situ Hardening Cell-Laden Constructs for Osteochondral Tissue Engineering"
\$ 1,666,190
53. National Institutes of Health (2015-16)
"Mayo Clinic Rice University Dental, Oral and Craniofacial Tissue Regeneration Consortium Resource Center"
\$ 211,000 (with Dr. M.J. Yaszemski)
54. National Institutes of Health (2017-22)
"Center for Engineering Complex Tissues"
\$ 6,269,343 (with Dr. J.P. Fisher)
55. RegenMed Development Organization (2018-22)
"Development of a Universal Bioink with Tunable Mechanical Properties for Regenerative Medicine Additive Manufacturing of Clinical Products"
\$ 600,000
56. National Institutes of Health (2023-28)
"Semiconductor Biomaterials to Speed Bone Healing: A Bioengineering-Driven Approach"
\$ 2,585,346 (with Dr. V.G. Varanasi)
57. Advanced Research Projects Agency for Health (2024-29)
"OMEGA: Orchestrating Multifaceted Engineering for Growing Artificial Joints"
\$ 1,368,875

Co-Principal Investigator

1. The Whitaker Foundation - Biomedical Engineering Special Opportunity Award (1995-98)
"Frontiers in Cellular and Tissue Engineering"
\$ 750,000 (Dr. L.V. McIntire, P.I.)
2. National Science Foundation (1995-98)
"Light Scattering Detector for Polymer Research"
\$ 20,600 (Part of "Radical Reactions of the Azo and Azoxy Groups," \$ 406,000, Dr. P.S. Engel, P.I.)
3. University of Texas M.D. Anderson Cancer Center - Physicians Referral Service (1995-96)
"Tissue Engineered Bone Flaps in Sheep"
\$ 31,295 (Dr. M.J. Miller, P.I.)
4. University of Texas M.D. Anderson Cancer Center - Physicians Referral Service (1995-96)
"In Vivo Evaluation of Recombinant Human Bone Morphogenetic Protein-2 as a Bone Graft Substitute for Cavitary Bone Defects"
\$ 43,170 (Dr. A.W. Yasko, P.I.)
5. The Whitaker Foundation - Biomedical Engineering Development Award (1996-2001)
"New Frontiers in Biomedical Engineering Education and Research"
\$ 5,000,000 (Dr. L.V. McIntire, P.I.)
6. Department of Defense (1996-97)
"Solid State NMR for the Characterization of Functional Materials"
\$ 200,000 (Dr. A.R. Barron, P.I.)
7. The Whitaker Foundation - Biomedical Engineering Leadership Award (1998-2003)

\$ 6,000,000 (Dr. L.V. McIntire, P.I.)

8. National Institutes of Health - Biotechnology Research Training Grant (2001-06)
\$ 1,506,761 (Dr. L.V. McIntire, P.I.)
9. National Science Foundation - Integrative Graduate Education and Research Training Grant in Cellular Engineering (2001-06)
\$ 2,620,649 (Dr. L.V. McIntire, P.I.)
10. National Science Foundation – Nanoscale Science and Engineering Center (2001-06)
“Center for Nanoscience in Biological and Environmental Engineering”
\$ 10,539,998 (Dr. R.E. Smalley, P.I.)

Students Supervised

Postdoctoral Research

Rice University:

Markus S. Widmer, Ph.D. (ETH Zürich, 1995), 1995-1997
 Julia E. Babensee, Ph.D. (University of Toronto, 1996), 1996-1999
 Raman V. Bahulekar, Ph.D. (University of Poona, 1991), 1997-1999
 Aaron S. Goldstein, Ph.D. (Carnegie Mellon University, 1997), 1997-1999
 Guizhen Liu, M.D. (University of Zürich, 1993), 1997-1999
 Qing Liu, Ph.D. (Leiden University, 1997), 1997-1999
 Zewen Liu, Ph.D. (University of Tulane, 1996), 1997-1998
 Guoming Zhu, M.D. (Shanghai Medical University, 1985), 1997-1998
 Shulin He, Ph.D. (University of Gent, 1993), 1998-1999
 Seongbong Jo, Ph.D. (Purdue University, 1998), 1998-2000, 2002-2003
 Georgios Stamatas, Ph.D. (Rice University, 1998), 1998
 Lichun Lu, Ph.D. (Rice University, 1999), 1999-2000
 William T. Godbey, Ph.D. (Rice University, 1999), 1999-2000
 Vassilios I. Sikavitsas, Ph.D. (State University of New York at Buffalo, 1999), 1999-2002
 Joerg Tessmar, Ph.D. (University of Regensburg, 2002), 2002-2004
 German Research Foundation Postdoctoral Fellowship, 2002-2004
 Hiroki Ueda, Ph.D. (Kyoto University, 2001), 2003-2004
 Japanese Science Foundation Postdoctoral Fellowship, 2003-2004
 Johnna S. Temenoff, Ph.D. (Rice University, 2003), 2003-2005
 National Institutes of Health Craniofacial-Oral Biology Program Trainee, 2004-2005
 Michael C. Hacker, Ph.D. (University of Regensburg, 2004), 2004-2007
 German Research Foundation Postdoctoral Fellowship, 2005-2007
 Upma Sharma, Ph.D. (Princeton University, 2005), 2005-2006
 First Prize, Keck Center Annual Research Conference Poster Contest, Gulf Coast Consortia, 2005
 National Institutes of Health Nanobiology Program Trainee, 2005-2006
 Elizabeth Christenson, Ph.D. (Case Western Reserve University, 2005), 2005-2007
 National Institutes of Health Craniofacial-Oral Biology Program Trainee, 2005-2007
 Mark Sweigart, Ph.D. (Rice University, 2005), 2005-2006
 F. Kurtis Kasper, Ph.D. (Rice University, 2005), 2005-2008
 National Institutes of Health Nanobiology Program Trainee, 2007-2008
 Balaji Sitharaman, Ph.D. (Rice University, 2005), 2005-2007
 Center for Nanoscale Science and Technology Evans Atwell Fellowship, 2005-2007
 Theoni K. Georgiou, Ph.D. (University of Cyprus, 2006), 2006-2007
 Meng Shi, Ph.D. (University of Toronto, 2008), 2008-2011
 Milind Singh, Ph.D. (University of Kansas, 2008), 2008-2010
 Ville V. Meretoja, Ph.D. (University of Turku, 2008), 2009-2014
 Diana M. Yoon, Ph.D. (University of Maryland, 2008), 2009-2011
 National Institutes of Health Nanobiology Program Trainee, 2009-2010

Manitha B. Nair, Ph.D. (Sree Chitra Tirunal Institute for Medical Sciences and Technology, 2009), 2009-2010

Kyle E. Hammerick, Ph.D. (Stanford University, 2009), 2009-2011
Alliance for NanoHealth Postdoctoral Fellowship, 2009-2011

Adam Ekenseair, Ph.D. (University of Texas at Austin, 2010), 2010-2013

George E. Kapellos, Ph.D. (University of Patras, 2008), 2010

Kyobum Kim, Ph.D. (University of Maryland, 2010), 2010-2012

Limin Wang, Ph.D. (University of Kansas, 2008), 2011-2013

Julia G. Gershovich, Ph.D. (State Scientific Center of Russian Federation, 2009), 2011-2012
National Space Biomedical Research Institute Postdoctoral Fellowship, 2011-2012

Yu-Chieh Chiu, Ph.D. (Illinois Institute of Technology, 2011), 2012-2013

Hajar Seyednejad, Ph.D. (Utrecht University, 2012), 2012-2013

Paschalia M. Mountziaris, Ph.D. (Rice University, 2011), 2013

Luis Antonio Díaz Gómez, Ph.D. (University of Santiago de Compostela, 2016), 2017-2019
Xunta de Galicia Postdoctoral Fellowship, 2017-2019

Mani Diba, Ph.D. (Radboud University Medical Center, 2018), 2019-2021
The Netherlands Organization for Scientific Research Rubicon Fellowship, 2019-2021
Marie Skłodowska-Curie Global Fellowship, European Commission, 2020

Vasiliki Kolliopoulos, Ph.D. (University of Illinois at Urbana-Champaign, 2023), 2023-present
Rice Academy Postdoctoral Fellowship, 2023-present
Travel Award, 8th Aegean Conference on Tissue Engineering, Sissi, Crete, Greece, 2025

Konstantinos Loukelis, Ph.D. (University of Crete, 2024), 2024-2025

Graduate Research

Rice University:

Susan L. Ishaug-Riley, Ph.D., 1992-1996
Graduate Student Award for Outstanding Research, Society For Biomaterials, 1997
Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University, 1997
Ph.D. Thesis Award: Runner Up, Sigma Xi, Rice University/Texas Medical Center, 1997
Dr. William B. Walsh Award for Excellence in Bioengineering, Advanced Tissue Sciences, 1996
First Prize, Chemical Engineering Graduate Research Symposium, Rice University, 1996
First Prize, Chemical Engineering Graduate Research Poster Contest, Rice University, 1996
Poster Award: Honorable Mention, Houston Society for Engineering in Medicine and Biology, 1996
Second Prize, Chemical Engineering Graduate Research Symposium, Rice University, 1995

Robert C. Thomson, Ph.D., 1992-1997

Robert L. Cleek, Ph.D., 1993-1997
Selected Excellence Paper, Society For Biomaterials, 1997
Intermedics Best Poster Award, Houston Society for Engineering in Medicine and Biology, 1995

Anna C. Jen, M.S., 1993-1997
NASA Graduate Student Researchers Program Trainee, 1996-1997
National Institutes of Health Biotechnology Program Trainee, 1994-1996

Laura J. Suggs, Ph.D., 1993-1998
Excellence in Science Dissertation Award for Best Ph.D. Thesis, Sigma Xi, Rice University/ Texas Medical Center, 1998
Graduate Student Award for Best Paper, Southern Biomedical Engineering Conference, 1998
Hershel M. Rich Invention Award, Rice University, 1997
National Institutes of Health Biotechnology Program Trainee, 1995-1997

M. Conley Wake, M.S., 1993-1997
Lodieska Stockbridge Vaughan Fellowship, Rice University, 1996
Third Prize, Chemical Engineering Graduate Research Symposium, Rice University, 1996
Distinguished Contribution, BFGoodrich Collegiate Inventors Program, 1995
National Science Foundation Graduate Research Fellowship, 1993-1996

Lichun Lu, Ph.D., 1994-1999

Susan J. Peter, Ph.D., 1994-1998
Graduate Student Award for Outstanding Research, Society For Biomaterials, 1998

Graduate Student Award Finalist, Materials Research Society Spring Meeting, 1998
 National Institutes of Health Biotechnology Program Trainee, 1996-1998
 Richard G. Payne, Ph.D., 1995-2001
 Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University, 2002
 First Prize, Chemical Engineering Graduate Research Poster Contest, Rice University, 1999
 National Institutes of Health Biotechnology Program Trainee, 1997-1999
 Hershel M. Rich Invention Award, Rice University, 1997
 Hershel M. Rich Invention Award, Rice University, 1995
 Esfandiar Behraves, Ph.D., 1997-2002
 William T. Godbey, Ph.D., 1997-1999
 Graduate/Postdoc Award on Innovative Aspects of Controlled Drug Release, Controlled Release Society-Capsugel, 2000
 National Science Foundation Graduate Research Fellowship, 1997-1999
 Albert K. Shung, M.S., 1997-2002
 Gregory N. Bancroft, Ph.D., 1998-2002
 Best Poster Award, Baylor College of Medicine M.D./Ph.D. Symposium, 2001
 Best Paper Award, Texas Medical Scientist Training Program Conference, 2000
 Transco Scholarship, 1998-2002
 John P. Fisher, Ph.D., 1998-2002
 National Science Foundation Center for Biological and Environmental Nanotechnology Trainee, 2001-2003
 Best Poster Award, Materials Research Society Fall Meeting, 2000
 Jeremy S. Blum, Ph.D., 1998-2003
 National Science Foundation Integrative Graduate Education and Research Program Trainee, 2001-2003
 Heungsoo Shin, Ph.D., 1998-2003
 Graduate Student Award for Outstanding Research, Society For Biomaterials, 2002
 Johnna S. Temenoff, Ph.D., 1998-2003
 Ralph Budd Award for Best Engineering Ph.D. Thesis, Rice University, 2004
 Whitaker Foundation Graduate Fellowship, 1998-2003
 Mark D. Timmer, Ph.D., 1998-2003
 National Science and Engineering Research Council Fellowship, 2000-2003
 National Institutes of Health Biotechnology Program Trainee, 1999-2000
 Jeffrey E.-K. Chen, M.S., 1999-2002
 Elizabeth L. Hedberg, Ph.D., 1998-2004
 National Science Foundation Center for Biological and Environmental Nanotechnology Trainee, 2003-2004
 Tissue Engineering Special Interest Group Student Award, Society For Biomaterials, 2002
 National Institutes of Health Biotechnology Program Trainee, 2001-2002
 National Institutes of Health Biotechnology Program Trainee, 1999-2000
 Heidi L. Holtorf, Ph.D., 1999-2004
 Graduate Student Award for Outstanding Research, Society For Biomaterials, 2005
 National Science Foundation Integrative Graduate Education and Research Program Trainee, 2001-2003
 F. Kurtis Kasper, Ph.D., 1999-2005
 Sallyport Award, Association of Rice Alumni, 2006
 National Science Foundation Integrative Graduate Education and Research Program Trainee, 2001-2003
 Kazuhiro Tanahashi, Ph.D., 2000-2008
 Manuela E. Gomes, Ph.D., 2001-2004
 Portuguese Foundation for Science and Technology Graduate Fellowship, 2001-2004
 Theresa A. Holland, Ph.D., 2001-2005
 Whitaker Foundation Graduate Fellowship, 2001-2005
 Amit S. Mistry, Ph.D., 2002-2007
 First Prize, National Institutes of Health Biotechnology Graduate Training Program Poster Contest, Rice University, 2004

National Institutes of Health Biotechnology Program Trainee, 2003-2005
 Zarana S. Patel, Ph.D., 2002-2007
 National Science Foundation Graduate Research Fellowship, 2003-2006
 Xinfeng Shi, Ph.D., 2002-2007
 Poster Award: Runner Up, Houston Society for Engineering in Medicine and Biology, 2004
 First Prize, Bioengineering Graduate Research Poster Contest, Rice University, 2004
 Hansoo Park, Ph.D., 2003-2007
 Sheila A. Moore, M.S., 2003-2007
 Matthew B. Murphy, Ph.D., 2003-2008
 National Science Foundation Integrative Graduate Education and Research Program Trainee, 2005-2006
 Quynh P. Pham, Ph.D., 2003-2007
 Simon Young, Ph.D., 2003-2008
 Oral Abstract Scientific Presentation Award, Annual Meeting of the American Association of Oral and Maxillofacial Surgeons, 2007
 Oral and Maxillofacial Surgery Foundation Research Fellowship, 2004-2006
 Sue Anne Chew, Ph.D., 2004-2010
 Xuan Guo, Ph.D., 2004-2009
 Jiehong Liao, Ph.D., 2004-2010
 Anita Saraf, Ph.D., 2004-2009
 National Science Foundation Integrative Graduate Education and Research Program Trainee, 2005-2006
 Leda Klouda, Ph.D., 2005-2010
 Edgar O'Rear Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2007
 Gerondelis Foundation Scholarship, 2007
 James D. Kretlow, Ph.D., 2005-2010
 Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine, 2011
 Mary Ann Liebert, Inc. Outstanding Student Award, Tissue Engineering and Regenerative Medicine International Society-North America, 2010
 Outstanding Bioengineering Undergraduate Alumnus Award, Rice University, 2010
 Medical Scientist Training Program Publication Award, Baylor College of Medicine, 2010
 Mary F.D. Morse Graduate Fellowship, Institute of Biosciences and Bioengineering, Rice University, 2009
 Outstanding Presentation Award, Annual Armed Forces Institute of Regenerative Medicine Conference, 2009
 Outstanding Bioengineering Teaching Assistant Award, Rice University, 2008
 National Institutes of Health Nanobiology Program Trainee, 2008-2009
 National Institutes of Health Biotechnology Program Trainee, 2006-2008
 Andrea Haesslein, M.S., 2006-2007
 Richard A. Thibault, Ph.D., 2006-2012
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2008-2012
 Travel Award, 3rd Aegean Conference on Tissue Engineering, Rhodes, Greece, 2008
 Emily Burdett, M.S., 2007-2012
 National Institutes of Health Biotechnology Program Trainee, 2008-2010
 Paschalia M. Mountziaris, Ph.D., 2007-2011
 Graduate Student Award for Outstanding Research, Society For Biomaterials, 2012
 Outstanding Ph.D. Thesis Award, Department of Bioengineering, Rice University, 2012
 Mary F.D. Morse Graduate Fellowship, Institute of Biosciences and Bioengineering, Rice University, 2010
 National Institutes of Health Biotechnology Program Trainee, 2010-2011
 Best Poster Award for Superior Presentation, Annual Research Conference of W.M. Keck Center for Interdisciplinary Bioscience Training, 2009
 Edgar O'Rear Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2009
 Student Travel Achievement Recognition, Society For Biomaterials, 2009
 National Institutes of Health Nanobiology Program Trainee, 2008-2010

Allan M. Henslee, Ph.D., 2008-2013
 Erica J. Levorson, Ph.D., 2008-2013
 Edgar O'Rear Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2013
 National Institutes of Health Biotechnology Program Trainee, 2009-2011
 Clark J. Needham, Ph.D., 2008-2014
 Patrick P. Spicer, Ph.D., 2008-2012
 Medical Scientist Training Program Thesis Publication Award, Baylor College of Medicine, 2013
 Rebecca L. Dahlin, Ph.D., 2009-2014
 Scholar Award, P.E.O. International, 2012
 Lucas A. Kinard, Ph.D., 2009-2014
 Travel Award, Advanced Technology Applications for Combat Casualty Care Meeting, 2010
 National Science Foundation Graduate Research Fellowship, 2009-2012
 Brendan M. Watson, Ph.D., 2009-2014
 National Institutes of Health Nanobiology Program Trainee, 2010-2012
 Eliza L.S. Fong, Ph.D., 2010-2015
 Collaborative Shared Prize, Institute of Biosciences and Bioengineering, Rice University, 2014
 Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2014
 Edgar O'Rear Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2013
 Outstanding Teaching Assistant Award, Department of Bioengineering, Rice University, 2012
 Overseas Graduate Scholarship, National University of Singapore, 2010-2015
 Johnny Lam, Ph.D., 2010-2015
 Best Ph.D. Thesis Award, Department of Bioengineering, Rice University, 2016
 Steven Lu, Ph.D., 2010-2015
 Tiffany N. Vo, Ph.D., 2010-2015
 Student Travel Achievement Recognition, Society For Biomaterials, 2014
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2013-2015
 Edgar O'Rear Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2012
 National Institutes of Health Baylor's Scientific Training Program for Dental Academic Researchers: B-Stars Trainee, 2011-2012
 Marco Santoro, Ph.D., 2011-2016
 Collaborative Shared Prize, Institute of Biosciences and Bioengineering, Rice University, 2016
 Sarita R. Shah, Ph.D., 2011-2016
 Medical Scientist Training Program Thesis Publication Award, Baylor College of Medicine, 2017
 Best Presentation Award, Texas Biomaterials Day at University of Texas at San Antonio, 2016
 Trainee Award, World Biomaterials Congress, 2016
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2015-2016
 Jordan E. Trachtenberg, Ph.D., 2011-2016
 Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2016
 National Science Foundation Graduate Research Fellowship, 2011-2015
 Esther J. Lee, Ph.D., 2012-2018
 Travel Award, 5th Aegean Conference on Tissue Engineering, Kos, Greece, 2014
 National Science Foundation Graduate Research Fellowship, 2012-2016
 Alexander M. Tatara, Ph.D., 2012-2016
 Outstanding Research by Hospital Intern Award, Society For Biomaterials, 2019
 Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine, 2017
 Young Investigator Award, Wake Forest Institute for Regenerative Medicine, 2016
 Travel Fund, Graduate Student Association, Rice University, 2016
 Second Place Oral Presentation Award, Baylor College of Medicine M.D./Ph.D. Symposium, 2016
 Milton Huppert Graduate Student Award, Medical Mycological Society of the Americas, 2016
 First Place Poster Award, 2nd Annual Symposium of Gulf Coast Cluster for Regenerative Medicine, 2015
 Travel Award, American Society of Microbiology, 2015
 Travel Award, Tissue Engineering and Regenerative Medicine International Society, 2015
 Kathy Crawford Community Service Award, Baylor College of Medicine, 2014
 Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2014

Eric R. Molina, Ph.D., 2014-2019
 Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine, 2021
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2016-2019

Brandon T. Smith, Ph.D., 2014-2019
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2017-2019

Jason L. Guo, Ph.D., 2015-2020
 Bioengineering Outstanding Thesis Award, Rice University, 2021
 Graduate Student Award for Outstanding Research, Society For Biomaterials, 2020
 Tissue Engineering Special Interest Group Student Abstract Award, Society For Biomaterials, 2020
 Young Investigator Award, Wake Forest Institute for Regenerative Medicine, 2019
 Future Faculty Fellow, George R. Brown School of Engineering, Rice University, 2019
 President, National Student Chapter, Society For Biomaterials, 2019-2020
 Travel Grant, Institute of Biosciences and Bioengineering, Rice University, 2019
 STAR Fellow, Smalley-Curl Institute, Rice University, 2018
 Student Scientist Award, Tissue Engineering and Regenerative Medicine International Society-Americas, 2017

Yu Seon Kim, Ph.D., 2015-2020
 Student Scientist Award, Tissue Engineering and Regenerative Medicine International Society-Americas, 2017

Trenton C. Piepergerdes, M.S., 2015-2018

Emma Watson, Ph.D., 2015-2020
 Richard R. Dickason, Jr., M.D., Ph.D. Outstanding Physician Scientist Award, Baylor College of Medicine, 2022
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2017-2020

Sean M. Bittner, Ph.D., 2016-2021
 National Science Foundation Graduate Research Fellowship, 2016-2021

Letitia K. Chim, Ph.D., 2016-2022

Gerry L. Koons, Ph.D., 2016-2021
 Graduate Teaching Award for Student Support, Rice University, 2019
 Outstanding Teaching Award, Department of Bioengineering, Rice University, 2018

Mollie M. Smoak, Ph.D., 2016-2021
 Ford Foundation Fellowship, 2016-2021
 National Science Foundation Graduate Research Fellowship, 2016-2021

Matthew L. Bedell, Ph.D., 2017-2022
 National Science Foundation Graduate Research Fellowship, 2019-2022

Adam M. Navara, Ph.D., 2017-2023
 National Science Foundation Graduate Research Fellowship, 2019-2023

Hannah A. Pearce, Ph.D., 2017-2022
 Graduate Student Award for Outstanding Research, Society For Biomaterials, 2023
 National Science Foundation Graduate Research Fellowship, 2017-2022

Katie J. Hogan, Ph.D., 2018-2023
 Ruth L. Kirschstein National Research Service Award, National Institutes of Health, 2020-2023

Sergio Barrios, Ph.D., 2018-2024

Marissa R. Perez, Ph.D. Candidate, 2019-2025
 National Science Foundation Graduate Research Fellowship, 2019-2025

Emily Y. Jiang, Ph.D. Candidate, 2020-present
 National Science Foundation Graduate Research Fellowship, 2020-present

Zina A. Helal, Ph.D. Candidate, 2022-present
 National Science Foundation Graduate Research Fellowship, 2022-present

Maeve M. Kennedy, Ph.D. Candidate, 2024-present

M.I.T.:

Heidi L. Wald, M.S., 1990-1991

Undergraduate Research

Rice University:

M. Conley Wake, 1992-1993

National Science Foundation Graduate Research Fellowship, 1993

POLYED Award for Outstanding Undergraduate Polymer Research, American Chemical Society, 1993

James S. Waters Creativity Award, Rice University, 1993

Marta A. West, 1992-1993

Undergraduate Scholar Award, Rice University, 1993

Horst A. von Recum, 1993

Matthew D. Allen, 1994-1995

Christine M. Bardsley, 1994

Joel H. Collier, 1994

Susan A. Hoffman, 1994

David Jaber, 1994

Keith Johnson, 1994

Julie L. Morris, 1994-1995

Terri A. Shefelbine, 1994

National Science Foundation Graduate Research Fellowship, 1995

Coy R. Stine, 1994

Alyssa R. Terk, 1994, 1996

Genevieve M. Crane, 1995-1996

Marshall Fellowship, 1996

National Science Foundation Graduate Research Fellowship, 1996

Whitaker Foundation Graduate Fellowship, 1996

James S. Waters Creativity Award, Rice University, 1996

John P. McGovern Outstanding Pre-Medical Student Award, Rice University, 1996

First Prize, The Institute of Biosciences and Bioengineering / Biochemistry and Cell Biology Poster Retreat (Undergraduate Seniors Category), Rice University, 1996

POLYED Award for Outstanding Undergraduate Polymer Research, American Chemical Society, 1995

Cameron A. Etezadi, 1995-1996

Puneet K. Gupta, 1995-1997

Travis W. Hopp, 1995-1997

Edmund Y.-C. Kao, 1995-1996

National Science Foundation Graduate Research Fellowship, 1996

Joyce L. Almaguer, 1996-1997

S. David Cho, 1996-1997

C. Alejandra Garcia, 1996-1998

Daniel J. Kim, 1996-1998

James S. Waters Creativity Award, Rice University, 1997

Poster Award: Runner Up, Houston Society for Engineering in Medicine and Biology, 1997

Ravi S. Krishnan, 1996-1997

Valerie A.-L. Liu, 1996-1998

National Science Foundation Graduate Research Fellowship, 1998

Whitaker Foundation Graduate Fellowship, 1998

Jessica A. Nolley, 1996

Fulbright Fellowship, 1997

Saumya A. Sivaram, 1996-1999

Karen C. Ting, 1996

Paul Kim, 1997-1998

Catalina R. Liang, 1997-1998

Laurie L. Palombo, 1997

Angela S.-Y. Peng, 1997-1998

Charlos C. Ward, 1997

Kimathi S.R. Blackwood, 1998

Sheila A. Herman, 1998-1999
 Special Award for Originality, Annual Biosciences Undergraduate Poster Session, 1999
 Tiffany M. Juarez, 1998-2000
 Grayson E. Morris, 1998
 National Science Foundation Graduate Research Fellowship, 1999
 Kavita Nyalakonda, 1998-1999
 Joseph S. McGonigle, 1999-2000
 Mehul N. Tejani, 1999
 Weera Chainakul, 2000
 Theresa A. Holland, 2000-2001
 National Science Foundation Graduate Research Fellowship, 2001
 Whitaker Foundation Graduate Fellowship, 2001
 National Defense Science and Engineering Fellowship, 2001
 James S. Waters Creativity Award, Rice University, 2001
 Best Poster Award, Materials Research Society Fall Meeting, 2000
 George R. Brown Undergraduate Research Intern, Rice University, 2000
 Jerzy Rokicki, 2000-2002
 Century Scholar, 2000-2002
 Robert W. Schroeter, 2000
 R. Adam Horch, 2001-2004
 National Science Foundation Center for Biological and Environmental Nanotechnology Trainee, 2002-2004
 Century Scholar, 2001-2003
 Charles K.-J. Shih, 2001-2004
 George R. Brown Undergraduate Research Intern, Rice University, 2002-2003
 National Science Foundation Center for Biological and Environmental Nanotechnology Trainee, 2001-2002
 Emily S. Steinbis, 2001-2002
 Second Prize, Rice Undergraduate Research Symposium, Rice University, 2002
 John W. Baker, 2002
 Carla M. Bossano, 2002-2003
 Beth M. Boulden, 2002
 Marc A. Burrell, 2002-2004
 Century Scholar, 2002-2004
 Daniel E. Conway, 2002-2003
 National Science Foundation Graduate Research Fellowship, 2003
 Néha Datta, 2002-2006
 Distinguished Senior Award, Rice Engineering Alumni Association, 2006
 Outstanding Contributions to Research Bioengineering Award, Rice University, 2006
 James S. Waters Creativity Award, Rice University, 2004
 Century Scholar, 2002-2004
 Julia L. Pergola, 2002-2003
 George R. Brown Undergraduate Research Intern, Rice University, 2003
 Stephanie K. Seidlits, 2002-2003
 Todd T. Tomson, 2002
 Geng Chen, 2003-2004
 Century Scholar, 2003-2004
 Cara R. Rieger, 2003-2004
 Timothy Borden, 2004-2006
 Century Scholar, 2004-2006
 Eric Huang, 2004-2005
 Century Scholar, 2004-2005
 Erin D. Jerkins, 2004-2005
 Patrick P. Spicer, 2004-2006
 Tommy Fu, 2005-2007
 Century Scholar, 2005-2007

Supriya Hattangadi, 2005-2007
 Century Scholar, 2005-2007
 Brandy Ma, 2005-2006
 Julie M. Mani, 2005-2006
 Salman A. Rahman, 2005-2007
 Marina N. Boleda, 2006-2007
 Stacy H. Cheng, 2006-2007
 Roxana R. Daneshjou, 2006-2008
 Century Scholar, 2006-2008
 Jennifer L. Holm, 2006-2007
 Wafa Soofi, 2006-2007
 Katherine L. Wu, 2006-2007
 Tiffany Yeh, 2006-2007
 Laura H. Barg-Walkow, 2007-2008
 Century Scholar, 2007-2008
 Brian T. Benjamin, 2007-2008
 Diane Chen, 2007-2008
 Century Scholar, 2007-2008
 Genevieve Lozier, 2007-2008
 Tiffany J. Siu, 2007
 Andy S.-L. Chang, 2008-2009
 Austin W. Edwards, 2008-2009
 Shannon Moore, 2008
 David C. Sing, 2008-2011
 Barry M. Goldwater Scholarship, Barry M. Goldwater Foundation, 2010
 Mimi W. Zhang, 2008
 Dong-Ho Gwak, 2009-2011
 Georgia K. Lagoudas, 2009
 Denny Lehman, 2009-2011
 Benjamin Y. Lu, 2009-2011
 Research Excellence Award, Rice Engineering Alumni, 2011
 Outstanding Bioengineering Junior Award, Rice University, 2010
 Honorable Mention Award for Outstanding Student Presentation, American Association for the
 Advancement of Science – Southwestern and Rocky Mountain Division Annual Meeting, 2010
 George R. Brown Undergraduate Research Intern, Rice University, 2009
 Kevin R. Perkins, 2009-2012
 Outstanding Contribution to Research Award, Department of Bioengineering, Rice University, 2012
 Stephanie N. Tzouanas, 2009-2014
 Undergraduate Student Award for Outstanding Research, Society For Biomaterials, 2014
 Student Travel Achievement Recognition, Society For Biomaterials, 2014
 Outstanding Bioengineering Junior Award, Rice University, 2013
 Research Excellence Award, Rice Engineering Alumni, 2013
 Outstanding Student Recognition Award, Texas Society of Professional Engineers, 2013
 Barry M. Goldwater Scholarship, Barry M. Goldwater Foundation, 2012
 Research Excellence Scholarship, Rice Engineering Alumni, 2012
 Century Scholar, 2010-2012
 Joseph Yu, 2009-2013
 Chia-Ye Chu, 2010-2013
 Century Scholar, 2010-2012
 Mengwei Ni, 2010-2014
 Century Scholar, 2010-2012
 Mallory T. Pierpoint, 2010-2011
 Austin K. Williams, 2010-2012
 Kylie E. Witherel, 2010-2011
 Sachin Allahabadi, 2011-2013
 Olivia Hu, 2011-2014

Century Scholar, 2011-2013
 Aline Lueckgen, 2011-2012
 Outstanding Contribution to Research Award, Department of Bioengineering, Rice University, 2012
 Sophia R. Petrichenko, 2011
 Noa Raindel, 2012
 Tea L. Roh, 2012-2014
 Morgan E. Sutter, 2012-2014
 Elisa C. Clark, 2013-2015
 Carrisa E. Livingston, 2013-2015
 Adam J. Ferguson, 2014
 John M. Frullo, 2014
 Jennifer L. Walker, 2014-2016
 Alexander Y. Lu, 2015-2018
 Allison Salter, 2015-2016
 Tejus Satish, 2015-2017
 Elaine G. Hu, 2016-2017
 Vladimir Belik, 2017
 Albert Han, 2017-2020
 Chris Kim, 2017-2018
 Panayiotis D. Kontoyiannis, 2017-2020
 Maria C. Salazar, 2017-2020
 Distinction in Research and Creative Works, Department of Bioengineering, Rice University, 2020
 Virginia Y. Xie, 2017-2020
 Athena J. Chien, 2018-2019
 Distinguished Junior Award, Rice Engineering Alumni, 2020
 Phil Layton Award for Excellence in Arts, Rice Engineering Alumni, 2020
 Best Engineering Poster Award (Underclassmen Category), Rice Undergraduate Research Symposium, 2019
 Maryam E. Elizondo, 2018-2019
 Best Engineering Poster Award (Seniors Category), Rice Undergraduate Research Symposium, 2019
 Carrigan D. Hudgins, 2018-2019
 Tate E. Shannon, 2018-2019
 Isabelle Williams, 2018-2021
 Distinguished Research Excellence Award, Rice Engineering Alumni, 2020
 Angelica L. Torres, 2019-2022
 Outstanding Poster Award, Summer Undergraduate Research Symposium, Institute of Biosciences and Bioengineering, Rice University, 2019
 Bonnie Wang, 2019-2021
 Seoyun C. Kong, 2020
 Shelby Desroches, 2021-2023
 Distinction in Research and Creative Works, Department of Bioengineering, Rice University, 2023
 Vince Wang, 2021-2023
 Aurora Xu, 2021-2023
 Victoria Yin, 2022-2023
 Vivian Y. Lang, 2023-2025
 Reyhan Umurhan, 2023-2025
 Sadhana Chari, 2024-
 Nothando Chingodza, 2024
 Ana Letca, 2024-
 Maya Moise, 2024
 Lyna D. Dao, 2025-
 Ellena Jeon, 2025-
 Mingyo Kang, 2025-
 Elias Sikavitsas, 2025-

M.I.T.:

Amy J. Thorsen, 1990
 Yuan Bao, 1990-1991
 Lisa A. Czerwonka, 1990-1991
 Hui-Lin Lai, 1990-1991
 Georgios Sarakinos, 1990-1991
 Amy M. Whiteman, 1990-1991
 Joseph F. Cotten, 1991
 Susan M. Leite, 1991

Purdue University:

Lyn M. Eshelman, 1986
 Candace J. Chang, 1987
 Daphne M. Williams, 1987

Ph.D. Theses Supervised

1. Susan L. Ishaug-Riley, "Bone Formation by Three-Dimensional Osteoblast Culture in Biodegradable Poly(α -Hydroxy Ester) Scaffolds," Ph.D. Thesis, Department of Chemical Engineering, Rice University, June 1996.
2. Robert C. Thomson, "Biodegradable Polymer Scaffold Fabrication and the Creation of Tissue Engineered Bone," Ph.D. Thesis, Department of Chemical Engineering, Rice University, April 1997.
3. Robert L. Cleek, "Polymeric Delivery of Inhibitors of Smooth Muscle Cell Proliferation," Ph.D. Thesis, Department of Chemical Engineering, Rice University, May 1997.
4. Susan J. Peter, "Injectable, *In Situ* Polymerizable, Biodegradable Scaffolds Based on Poly(Propylene Fumarate) for Guided Bone Regeneration," Ph.D. Thesis, Department of Chemical Engineering, Rice University, May 1998.
5. Laura J. Suggs, "Development of Poly(Propylene Fumarate-co-Ethylene Glycol): An Injectable, Biodegradable Implant for Cardiovascular Applications," Ph.D. Thesis, Department of Chemical Engineering, Rice University, May 1998.
6. Lichun Lu, "Modulation of Cell Morphology and Function Using Synthetic Biodegradable Polymers," Ph.D. Thesis, Department of Chemical Engineering, Rice University, May 1999.
7. William T. Godbey, "Poly(Ethylenimine) as a Gene Delivery Vehicle, and Its Potential for Gene Therapy," Ph.D. Thesis, Department of Biochemistry and Cell Biology, Rice University, August 1999.
8. Richard G. Payne, "Development of an Injectable, *In Situ* Crosslinkable, Degradable Polymeric Carrier for Osteogenic Populations," Ph.D. Thesis, Department of Chemical Engineering, Rice University, October 2001.
9. Gregory N. Bancroft, "Bone Tissue Engineering by Cell and Matrix Transplantation," Ph.D. Thesis, Department of Bioengineering, Rice University, May 2002.
10. Esfandiar Behraves, "Synthesis of an Injectable Biodegradable Biomimetic Macroporous Hydrogel Scaffold for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2002.
11. John P. Fisher, "The Development of a Photocrosslinked Biomaterial for Bone Tissue Engineering Applications," Ph.D. Thesis, Department of Bioengineering, Rice University, October 2002.
12. Mark D. Timmer, "Development of a Biodegradable Interbody Fusion Device," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2003.
13. Heungsoo Shin, "Development of Biodegradable, Biomimetic Hydrogels Modulating Cellular Function for Guided Bone Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2003.
14. Johnna S. Temenoff, "Development of Thermally-Crosslinked Hydrogels as Injectable Cell Carriers for Orthopaedic Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2003.
15. Jeremy S. Blum, "Development of Genetically Modified Cells for Bone Tissue Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, October 2003.

16. Elizabeth L. Hedberg, "Controlled Release of Osteogenic Factors from Injectable Biodegradable Composite Materials for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2004.
17. Manuela E. Gomes, "A Bone Tissue Engineering Strategy Based on Starch Scaffolds and Bone Marrow Cells Cultured in a Flow Perfusion Bioreactor," Department of Polymer Engineering, University of Minho, Portugal, October 2004.
18. Heidi L. Holtorf, "Modulation of Marrow Stromal Cell Differentiation in Bone Tissue Engineering Constructs," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2004.
19. F. Kurtis Kasper, "Investigation of Oligo(Poly(Ethylene Glycol) Fumarate) Hydrogels for Controlled Release of Plasmid DNA," Ph.D. Thesis, Department of Bioengineering, Rice University, September 2005.
20. Theresa A. Holland, "Controlled Growth Factor Delivery from Biodegradable Hydrogel Scaffolds for Articular Cartilage Repair," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2005.
21. Xinfeng Shi, "Development of Injectable Nanocomposite Scaffolds of Single-Walled Carbon Nanotubes and Biodegradable Polymers for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, February 2007.
22. Hansoo Park, "Injectable Cell/Hydrogel Composites for Articular Cartilage Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2007.
23. Amit S. Mistry, "Degradation and Biocompatibility of a Fumarate-Based/Alumoxane Nanocomposite for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2007.
24. Zarana S. Patel, "Controlled Delivery of Angiogenic and Osteogenic Growth Factors for Bone Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2007.
25. Quynh P. Pham, "Modulation of the Osteoblastic Differentiation of Marrow Stromal Cells for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2007.
26. Simon Young, "The Effect of Simultaneous, Controlled Release of Angiogenic and Osteogenic Growth Factors on the Enhancement of Osteogenesis within Craniofacial Defects," Ph.D. Thesis, Department of Bioengineering, Rice University, May 2008.
27. Matthew B. Murphy, "Targeted Delivery of Osteogenic Drugs for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, May 2008.
28. Kazuhiro Tanahashi, "Design and Preparation of Fumarate-Based Biodegradable Polymer Hydrogels for Tissue Engineering," Ph.D. Thesis, Institute for Frontier Medical Sciences, Kyoto University, Japan, January 2009.
29. Anita Saraf, "Regulated Release of a Novel Non-Viral Gene Delivery Vector from Electrospun Coaxial Fiber Mesh Scaffolds," Ph.D. Thesis, Department of Bioengineering, Rice University, May 2009.
30. Ana M. Martins, "Stimulus Responsive Smart Supports and Scaffold/Cell Constructs for Bone Tissue Engineering," Ph.D. Thesis, Department of Polymer Engineering, University of Minho, Portugal, July 2009.
31. Xuan Guo, "Injectable Cell-Laden Hydrogel Composites for Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Chemical and Biomolecular Engineering, Rice University, December 2009.
32. James D. Kretlow, "Biomaterial-Based Strategies for Craniofacial Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, January 2010.
33. Sue Anne Chew, "Biodegradable Branched Polycationic Polymers as Non-Viral Gene Delivery Vectors for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, February 2010.
34. Leda Klouda, "Development of a Thermoresponsive and Chemically Crosslinkable Hydrogel System for Craniofacial Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2010.
35. Jiehong Liao, "Modulation of Chondrogenic and Osteogenic Differentiation of Mesenchymal Stem Cells through Signals in the Extracellular Microenvironment," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2010.
36. Paschalia M. Mountziaris, "Harnessing Inflammatory Signaling to Promote Bone Regeneration and Mitigate Joint Damage," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2011.

37. Richard A. Thibault, "Development of Osteoinductive Tissue Engineering Scaffolds with a Bioreactor," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2012.
38. Patrick P. Spicer, "Two Stage Repair of Composite Craniofacial Defects with Antibiotic Releasing Porous Poly(Methyl Methacrylate) Space Maintainers and Bone Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2012.
39. Erica J. Leverson, "Polymer/Extracellular Matrix Composite Scaffolds for Articular Cartilage Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2013.
40. Allan M. Henslee, "Polymer-Based Approaches to Bone Tissue Repair and Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, October 2013.
41. Rebecca L. Dahlin, "Co-Cultures of Articular Chondrocytes and Mesenchymal Stem Cells for Cartilage Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, February 2014.
42. Lucas A. Kinard, "Synthetic Hydrogel Delivery of Growth Factors and Demineralized Bone Matrix for Bone Augmentation," Ph.D. Thesis, Department of Chemical and Biomolecular Engineering, Rice University, February 2014.
43. Clark J. Needham, "Development of a Polymeric Gene Delivery Vector for Application in Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, February 2014.
44. Brendan M. Watson, "Synthesis and Characterization of Novel, *In Situ*-Forming, Biodegradable Hydrogels for Cellular Delivery in Craniofacial Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2014.
45. Eliza L.S. Fong, "Engineering Three Dimensional *In Vitro* Models of Bone Tumors for Drug Testing and Mechanistic Studies," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2015.
46. Johnny Lam, "Development of Cell-Laden Hydrogel Composites for Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2015.
47. Steven Lu, "Biodegradable Hydrogel Composites for Growth Factor and Stem Cell Delivery in Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2015.
48. Tiffany N. Vo, "Development of Injectable, Dual Thermally and Chemically Gelling Hydrogels for Craniofacial Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, October 2015.
49. Sarita R. Shah, "Antibiotic-Releasing Porous Poly(Methyl Methacrylate) for Space Maintenance and Infection Prevention in Large Bone Defects," Ph.D. Thesis, Department of Bioengineering, Rice University, June 2016.
50. Jordan E. Trachtenberg, "Three-Dimensional Printing of Polymer Composite Scaffolds for Bone Tissue Engineering and Bone Tumor Models," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2016.
51. Marco Santoro, "Development of a High-Throughput 3D Tumor Model for Bone Sarcomas," Ph.D. Thesis, Department of Chemical and Biomolecular Engineering, Rice University, August 2016.
52. Alexander M. Tatara, "Leveraging Biomaterials for the Treatment of Large Infected Tissue Defects," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2016.
53. Esther J. Lee, "Adeno-Associated Virus-Based Gene Delivery Approaches for Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, May 2018.
54. Brandon T. Smith, "Development of Synthetic Polymeric and Ceramic Composite Constructs for Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, June 2019.
55. Eric R. Molina, "Tissue-Engineered Tumor Microenvironments for Bone Sarcoma," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2019.
56. Emma Watson, "Customizable Bone Constructs and Tunable Scaffolds for Craniofacial Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2020.
57. Jason L. Guo, "Injectable, Click Functionalized Hydrogels for Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, November 2020.
58. Yu Seon Kim, "Injectable Biomimetic Hydrogel Platforms for Cartilage Regeneration," Ph.D. Thesis, Department of Bioengineering, Rice University, November 2020.
59. Mollie M. Smoak, "Development and Characterization of Tunable, Bioinspired Electrospun Constructs for Skeletal Muscle Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, June 2021.

60. Sean M. Bittner, "Fabrication of Three-Dimensional Printed Gradient Scaffolds for Heterogeneous Tissue Repair," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2021.
61. Gerry L. Koons, "3D Printing of Biomaterials for Cranial Bone Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, December 2021.
62. Hannah A. Pearce, "Development and Characterization of Modular Biomaterial Platforms for Cartilage Tissue Engineering Applications," Ph.D. Thesis, Department of Bioengineering, Rice University, June 2022.
63. Matthew L. Bedell, "Development of Novel Bioinks for Studying Multi-Material Architecture within Osteochondral Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, July 2022.
64. Letitia K. Chim, "Tissue-Engineered Microenvironments to Model Mechanical Cues and Tumor-Associated Macrophages in Osteosarcoma," Ph.D. Thesis, Department of Bioengineering, Rice University, September 2022.
65. Adam M. Navara, "Design and Characterization of a Thermogelling Ink and Support Bath System for Extrusion Bioprinting," Ph.D. Thesis, Department of Bioengineering, Rice University, January 2023.
66. Katie J. Hogan, "Development of Extracellular Matrix-Based Biomaterials for Musculoskeletal Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, August 2023.
67. Sergio Barrios, "Dissecting the Effects of Targeted Radiation on the Bone Microenvironment," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2024.
68. Marissa R. Perez, "Development of Extracellular Matrix-Based Colloidal Inks for Cartilage Tissue Engineering," Ph.D. Thesis, Department of Bioengineering, Rice University, April 2025.

M.S. Theses Supervised

1. M. Conley Wake, "Fabrication of Pliable Polymer Scaffolds for Tissue Engineering and Particulate Effects on Osteoblast Function," M.S. Thesis, Department of Chemical Engineering, Rice University, March 1997.
2. Anna C. Jen, "Effects of Mechanical Loading on Osteoblast Function Using a Three-Dimensional Cell/Polymer Construct," M.S. Thesis, Department of Chemical Engineering, Rice University, May 1997.
3. Albert K. Shung, "Synthesis and Characterization of an Injectable Copolymer Hydrogel for Cardiovascular Applications," M.S. Thesis, Department of Bioengineering, Rice University, June 2002.
4. Jeffrey E.-K. Chen, "Evaluation of Adhesive Properties of Poly(Propylene Fumarate) and Fabrication of Laminated Three-Dimensional Scaffolds for Bone Tissue Engineering," M.S. Thesis, Department of Chemical Engineering, Rice University, September 2002.
5. Andrea Haesslein, "Development of Ocular Drug Delivery Systems Using Biodegradable Polymers," M.S. Thesis, Department of Bioengineering, Rice University, April 2007.
6. Sheila A. Moore, "Synthesis and Characterization of Matrix Metalloproteinase Sensitive Hydrogels for Articular Cartilage Engineering," M.S. Thesis, Department of Bioengineering, Rice University, April 2007.
7. Emily Burdett, "Development of a 3D Tissue Engineered Bone Tumor Model," M.S. Thesis, Department of Bioengineering, Rice University, December 2012.
8. Trenton C. Piepergerdes, "Investigating Optogenetics as an Approach to Control Growth Factor Expression for Tissue Engineering," M.S. Thesis, Department of Bioengineering, Rice University, May 2018.

Current Theses Supervision

1. Emily Y. Jiang, "Leveraging Tunable Electrostatic Interactions for Modular Loading and Release of Peptides," Ph.D. Thesis, Department of Bioengineering, Rice University (expected completion May 2026).
2. Zina A. Helal, "A Tunable Particulate Drug Delivery System Utilizing Affinity Interactions for Controlled Release of Osteogenic Therapeutic Peptides," Ph.D. Thesis, Department of Bioengineering, Rice University (expected completion May 2027).
3. Maeve M. Kennedy, "Development of Biodegradable Polymer Scaffolds for Osteochondral Tissue

Engineering,” Ph.D. Thesis, Department of Bioengineering, Rice University (expected completion May 2029).

Teaching Experience

Rice University

BIOE 370 (U, N): “Biomaterials,” Fall 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, and 2024
 BIOE 620/CENG 620 (U/G, N): “Tissue Engineering,” Spring 1993, 1995, 1997, 1999, 2000, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, and 2025
 BIOE 406/CENG 406 (U, N): “Tissue Engineering,” Spring 2023 and 2025
 BIOE 420/CENG 420 (U, N): “Biosystems Transport and Reaction Processes,” Spring 1994, Fall 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2005, and 2006
 CENG 672 (G): “Applied Mathematics I,” Fall 1992, 1993, 1994, 1995, 1996, and 1997
 CENG 343 (U): “Chemical Engineering Lab,” Fall 1993

Tsinghua University

(G): “Biomedical Materials,” Spring 2020 (with Prof. X. Wang)

University of Texas Health Science Center at Houston, Dental Branch

GS210082 (G): “Oral Biomaterials I,” Summer 1994 and 1995

M.I.T.

10.362 (U): “Integrated Chemical Engineering,” Spring 1991 (with Prof. R. Langer)

U=Undergraduate; G=Graduate; N=New Course Not Previously Given at Rice

Service at Rice University

1992	Organizer, Chemical Engineering Colloquium
1992-2000	Faculty Associate, Sid Richardson College
1992-2000	Graduate Recruiting Committee Member, Department of Chemical Engineering
1992-2000	Library Representative, Department of Chemical Engineering
1992	Trainer, NIH Minority High School Student Research Apprentice Program
1993-1994	Graduate Curriculum Committee Member, Bioengineering Program
1994	Organizing Committee Member, Biochemistry and Cell Biology Retreat
1994-1996	Organizer, Chemical Engineering Graduate Research Poster Contest
1994-2000	Steering Committee Member, NIH Biotechnology Training Program
1995-	Faculty Operating Committee Member, Medical Scientist Training Program, Baylor College of Medicine/Rice University
1996	Organizer, Chemical Engineering Colloquium
1996	Organizer, Chemical Engineering Graduate Research Symposium
1996-1997	Undergraduate Curriculum Committee Member, Department of Bioengineering
1998-2001	Graduate Recruiting Committee Member, Department of Bioengineering
1999	Faculty Search Committee Member, Department of Bioengineering
1999-2006	Undergraduate Admissions Committee Member, Rice University
2000-	Faculty Associate, Jones College
2000-2001	Awards Committee Chair, Department of Bioengineering
2000-2001	Faculty Search Committee Chair, Department of Bioengineering
2001	Organizer, Symposium Celebrating Keck Hall, the New Home of the Department of Bioengineering, and Honoring Professor J. David Hellums

2001	Trainer, NSBRI High School Student Research Apprentice Program
2001-2006	Steering Committee Member, NSF IGERT Program
2002	Faculty Search Committee Member, Department of Bioengineering
2002-2005	Awards and Mentoring Committee Chair, Department of Bioengineering
2002-2020	Graduate Academic Affairs Committee Chair, Department of Bioengineering
2003-2004	Chair Search Committee Member, Department of Bioengineering
2004-2005	Dean of Engineering Search Committee Member, School of Engineering
2005	Faculty Search Committee Member, Department of Bioengineering
2005-2008	Cain Project Faculty Advisory Committee Member, Rice University
2006-	Awards and Mentoring Committee Member, Department of Bioengineering
2006-	Executive Committee Member, Medical Scientist Training Program, Baylor College of Medicine/Rice University
2007-2008	Laureates Committee Member, Association of Rice Alumni
2009-2011	Promotions and Tenure Committee Member, School of Engineering
2010	Faculty Search Committee Member, Department of Bioengineering
2010	Dean of Engineering Search Committee Member, School of Engineering
2011	Communication Working Group Member, Rice University
2012-2019	Faculty Search Committee Member, Department of Bioengineering
2012-2019	Faculty Conflicts Committee Member, Rice University
2016-2019	Graduate Council, Rice University
2017-2018	Natural Sciences Dean Review Committee Chair, Rice University
2020	Dean of Engineering Search Committee Member, School of Engineering
2020	COVID-19 Research Fund Oversight and Review Committee Member, Rice University
2020-	Graduate Academic Affairs Committee Member, Department of Bioengineering
2020-2023	Graduate Admissions and Recruiting Committee Chair, Department of Bioengineering
2021-2022	Vice President for Research Search Committee Member, Rice University
2023	Graduate Admissions and Recruiting Committee Member, Department of Bioengineering
2024-	Graduate Admissions and Recruiting Committee Chair, Department of Bioengineering