

THOMAS J. WEBSTER



EDUCATION

Doctor of Philosophy in Biomedical Engineering

Rensselaer Polytechnic Institute, Troy, NY, 1995 to 2000.

Dissertation: "Design, synthesis, and evaluation of nanophase ceramics for orthopaedic/dental applications."

Completed: Dec. 2000.

Advisor: Dr. Rena Bizios, Department of Biomedical Engineering.

Co-Advisor: Dr. Richard W. Siegel, Department of Materials Science and Engineering.

Master of Science in Biomedical Engineering

Rensselaer Polytechnic Institute, Troy, NY, 1997.

Bachelor of Science in Chemical Engineering

University of Pittsburgh, Pittsburgh, PA, 1995.

RESEARCH, TEACHING, AND COMMERCIALIZATION EXPERIENCE

- 2012-present Department Chair and Art W. Zafiropoulo Professor of Chemical Engineering, *Northeastern University, Boston, MA*
- 2006-2012 Associate Professor, *School of Engineering, Brown University, Providence, RI*
- 2006-2012 Associate Professor, *Department of Orthopaedics, Brown University, Providence, RI (by courtesy)*
- 2006-present Scientific Founder and Chair of the Scientific Advisory Board, *Nanovis, LLC, West Lafayette, IN*
- 2007-present Adjunct Faculty, *California Institute of Nanotechnology San Jose, CA*
- 2007, 2009-2012 Director, Biomedical Engineering Graduate Program (Engineering), *Brown University, Providence, RI*
- 2008-2010 Director, *Indo-U.S. Center for Biomaterials for Health Care*
- 2009-present Scientific Founder, *Audax, Inc., Concord, MA*
- 2010-present Scientific Founder and Chair of the Scientific Advisory Board, *Axena, Providence, RI*
- 2011-present Scientific Founder, *DentalRegen, Inc., Concord, MA*
- 2011-present Scientific Founder, *Perios, Inc., Concord, MA*

- 2015-present Scientific Founder, *Vexti, Wilmington, DE*
- 2011-present Visiting Professor, VIT, India
- 2005-2006 Associate Professor, *Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN*
- 2005-2006 Associate Professor, *School of Materials Engineering, Purdue University West Lafayette, IN (by courtesy)*
- 2000-2005 Assistant Professor, *Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN*
- 2004-2005 Assistant Professor, *School of Materials Engineering, Purdue University West Lafayette, IN (by courtesy)*

COMMERCIALIZATION/TRANSLATIONAL RESEARCH

Nanovis, LLC formed based in part on technology developed at Brown, Purdue, and RPI (over 24 issued patents and patent applications – US 7,824,462 B2; US 7,622,129 B1; US 6,270,347 B1; US 7,527,803 B2; US 7,993,412, B2) (2006)

Axena, Inc. formed based on technology developed at Brown (1 patent application) (2010)

Audax, Inc. formed based on technology developed at Brown (1 patent application) (2009)

DentalRegen, Inc. formed based on technology developed at Brown (1 patent application) (2011)

Perios, Inc. formed based on technology developed at Brown (1 patent application) (2011)

3 other patent applications available upon request

AWARDS AND HONORS

Awards from Societies/Organizations

Paper entitled “Supplemental Instruction benefits students in an introductory engineering course” was selected as one of 13 papers out of over 400 submitted to be published in <i>Journal of Engineering Education</i> summarizing ASEE Frontiers in Engineering Education Conference, Pittsburgh, PA	(1997)
Biomedical Engineering Society Student Travel Award	(1998, 1999)
Honorable Mention for the Student Travel and Professional Development Award for the Society of Biomaterials	(1999)
Rita Schaffer Biomedical Engineering Society Young Investigator Award	(2002)
Certificate of Recognition for IPSE (Indiana Partnership for Statewide Education) Leadership and Innovation in “Teaching with Technology in a Distance Education Program”	(2004)
Certificate of Appreciation for giving an invited tutorial at the John F. Johnston Society for the Advancement of Prosthodontics	(2004)
Special contribution to the Materials Research Society meeting monetary award	(2004)
Finalist for Outstanding Young Investigator for the American Association of Nanomedicine	(2005)
Coulter Foundation Early Career Award	(2005)
Fellow, American Association of Nanomedicine	(2006)
Founder, Nanovis, Inc. (company based on nanotechnology research)	(2007)
Founder, Audax, Inc. (company based on nanotechnology research)	(2009)
Founder, Nanovault, Inc. (company based on nanotechnology research)	(2009)
Citation Award, Society for Critical Care Medicine	(2010)
Biomedical Engineering Society (BMES) Outstanding Leadership Award	(2011)
Fellow, American Institute for Medical and Biological Engineering (AIMBE) Representing top 2% of all medical and biological engineers	(2012)
Fellow, Biomedical Engineering Society	(2013)
Fellow, Ernst Strugmann Foundation	(2014)
President-elect, U.S. Society for Biomaterials	(2015)

Awards from Universities

Highlighted as Outstanding Alumni in <i>University of Pittsburgh School of Engineering Alumni Newsletter</i>	(1997)
Rensselaer Founders Award for Excellence (awarded to less than 1% of graduate student body)	(1997)
Department of Biomedical Engineering Paul B. Daischt Award	(1997-2000)
Karen and Lester Gerhardt Graduate Student Award in recognition of outstanding academic achievement and promise for a successful career	(2000)
Young Researcher Award for Purdue University Schools of Engineering (award given annually to one faculty member under 35 years of age)	(2004)
Distinguished Lecturer in Nanomedicine, University of South Florida.	(2010)
Distinguished Lecturer, University of California Riverside	(2013)

Distinguished Lecturer in Nanotechnology, University of California Davis (2014)
 Distinguished Lecturer in Nanomedicine, University of Florida (2014)
 Distinguished Lecturer, NC State University (2015)
 Distinguished Lecturer and Orthopedic Institute Award, Soochow University (2015)
 Outstanding Contributions to the Literature, Wenzhou Institute of Biomaterials
 And Engineering (WIBE) (2015)

Selected Research Recognition in International and National Magazines/Press

Chemical and Engineering News, Feb. 28, pp. 39-42 (2000)
Advances in Nanomaterial Research, April, pp. 3 (2001)
Nanoparticle News magazine, April, pp. 5-6 (2001)
High Tech Ceramics News, vol. 14, no. 1, May, pp. 6-7 (2002)
 Cover story of research in *American Ceramic Society Bulletin*, 82(6): pp. 1 – 8 (2003)
Materials Today, July/August, p.10 (2003)
Materials Research Society Bulletin, May (2003)
Materials Research Society Bulletin, December (2003)
Small Times: Big News in Small Tech, November 4 (2003)
Nanotech.org, November 4 (2003)
United Press Release (UPI) “Tiny bumps improve bone implants,” November 10 (2003)
Nanotech.org, November 12 (2003)
Health & Medicine Week, November 24 (2003)
Technology Research News (2003)
Biotech Week, November 26 (2003)
Medical Devices & Surgical Technology Week, November 30 (2003)
NanoBiotech News, December 3 (2003)
 “The Latest Technology Research News” *TRNmag.com*, December 17 (2003)
Science Base at www.Sciencebase.com (2004)
NanoBiotech News, January 14 (2004)
Advanced Materials & Processes 162 (1), 19, January (2004)
Science News, January 24, p. 62 (2004)
Business Information – US, January 28 (2004)
R&D Magazine “Nanobumps Enhance Implants” (2004)
NanoBiotech News, May 5 (2004)
NanoNews-Now Premium Report #11, May (2004)
Nanoparticle News, February pg. 4 (2004)
Medical Device Technology Alert, pg. 10-11 (2004)
Economist, June 5 (2004)
The Globe and Mail, Toronto Daily Newspaper, July 27 (2004)
NanoBiotech News, June 16 (2004)
 MSNBC News, on-line, “Getting Molecules to do the Work”, April 26 (2004)
 Whitaker.org (www.whitaker.org/news/webster.html), December 5 (2004)
Nanotechnology Now, November 23 (2004)
Nanobiotech News, December 22 (2004)
MicronNano: Newsletter of Tools and Products in Micro and Nanotechnology (2004)
Cleanrooms magazine, January (2005)

Process Engineering, January, pg. 10 (2005)

Time Magazine (to appear this Winter) (2006)

Touch Briefings, Nanobiotechnology 2006, June (2006)

Science Museum London Exhibit, Antenna News Source, July 17 (2006)
<http://www.sciencemuseum.org.uk/antenna/implantinfection/>

Biotechniques (2006)

Technical Insights, Frost and Sullivan, July 19 (2006)

Materials Research Society Bulletin, July 27 (2006)
http://www.mrs.org/s_mrs/sec.asp?CID=1920&DID=84063

Providence Business News, August 1, 2006 (2006)

MIT Technology Review, Friday, Sept. 22 (2006)

Biomechanics, to appear (2006)

Brown University Web Site: “Problem: Implant Infection. Solution: Nanotech Surfaces” (2006)

Brown University Web Site: “Undergraduate Biomedical Engineers Win Awards” (2006)

Chemical and Engineering News, “Damage Control: Combination of Carbon Nanofibers and Stem Cells Can Regenerate Lost Neurons in Rats,” September 18th, pg. 14. (on line September 16th) (2006)

Problem: Implant infection. Solution: Nanotech surface (July 8) (nanotechwire.com) (2006)

Bone Growing Material Could Improve Orthopedic Implants (Sept. 17) (nanotechwire.com) (2007)

Nanowerk, on-line at: <http://www.nanowerk.com/spotlight/spotid=1652.php> (2007)

Chemical Engineering Progress (2007)

Physorg.com, April, 10 (2007)

French Embassy at: <http://www.bulletins-electroniques.com/actualites/42313.htm> (2007)

NBC Nightly News, May 14th (2007)

Boston Science Museum, summer (2007)

Arab Health World, July-August, pg 2 (2007)

WebIndia 123.com, “Nanomaterial may aid orthopedic implant” (2007)

Science Daily News “Orthopedic Implants” (2007)

Materials Research Society “Carbon nanotubes grown from anodized nanotubular titanium for orthopedic applications” www.mrs.org (2007)

MIT Technology Review: Biosensors for Orthopedic Applications, September 29 (2007)

Forskning & Framsteg (Swedish Science Magazine), October issue (2007)

Russian Television Network of American (RTWMNB), anchor, Alexander Grant, October 25 (2007)

Nanotube Implants, *Materials World*, a UK-based magazine, 15(11):15 (2007)

Indianapolis Star, “Improving Implants,” November 13 (2007)

Artificial Joints that Talk, *IEEE Spectrum On-Line* (<http://www.spectrum.ieee.org/nov07/5697>) (2007)

Nanotubes on the look-out for new bone, nanotechweb.org (June 26) (2007)

MedicalPhysicsWeb.org (July 3) (2007)

Nanotechnology may allow hip implants to sense growth of new bone (Foresight Nanotech Institute) (foresight.com) (2007)

Design News, to appear in Winter (www.designnews.com) (2008)

MIT Technology Review (June 16, 2008): Regenerating Lost Cartilage:
A surface textured with carbon nanotubes could encourage cells to grow. (2008)

Digg.com: Regenerating Lost Cartilage, June 16 (2008)

Scientific American: Nanotech to Regrow Cartilage and Sooth Aching Knees,
June 16 (2008)

Industrie Pharma Magazine (2008)

<http://nanotechweb.org> (2008)

PBS DragonFly TV, appeared throughout Fall on all PBS stations (2008)

Nanotubes and a little voltage help cartilage grow (Sept. 1) (Medicaldesign.com) (2008)

Nanotechnology may help hip implants sense growth (Aug. 30) (2008)
(hipresurfacingnews.com)

Ivanhoe Medical Breakthroughs Local Broadcast News “Medicine’s Next Big
Thing: Growing Cartilage for Knees” (Broadcast in over 30 U.S. Cities
on local newstations) (2008)

Assembly Magazine “Bone-Growing Nanomaterial Could Improve Artificial
Joints” (January 5) (2009)

Title:Carbon nanotube implants may help regenerate cartilage (2008)
(INDUSTRY NEWS) *Advanced Materials & Processes* 166.10, pS10(1)

“Nanotexture promotes bladder tissue regeneration: (2009)
Mimicking the roughness of natural tissue also inhibits bladder calcium stone formation “
in *Nanotech.web* at <http://nanotechweb.org/cws/article/tech/38783>

Bone Zone “How Nanotechnology is Revolutionizing Orthopedics” (2009)

Brown University web site “Implant bacteria, beware: Researchers create nanosized
assassins” June 25 (2009)

NanoHub.org on-line presentation of research (2009)

NanoBioNexus.org on-line presentation of research (2009)

Materials Research Society Meeting Scene story concerning Prof. Webster’s
International Journal of Nanomedicine at www.mrs.org (2009)

Science Codex article “Impant bacteria, beware : Researchers create nanosized
assassins” posted June 26 at [/www.sciencecodex.com/](http://www.sciencecodex.com/) (2009)

Physorg.com story on magnetic nanoparticles to kill bacteria posted June 28 (2009)

Medical News Today story on magnetic nanoparticles to kill bacteria posted
June 29 (2009)

R & D Magazine, Friday, June 26th at: [http://rdmag.com/News/2009/06/
Materials-Nano-Sized-Assassins/](http://rdmag.com/News/2009/06/Materials-Nano-Sized-Assassins/) (2009)

NanoTechWire “Researchers Create Nano-sized Assasins June 26th at:
<http://nanotechwire.com/news.asp?nid=8132&ntid=&pg=58> (2009)

MedTechPulse “Nanosized assassins whack bacteria” June 29th at:
<http://www.devicelink.com/mpmn/blog/?p=1520> (2009)

Coalitionforequality: “Researchers create nano-assassins to kill bacteria” June 30th at:
<http://www.coalitionforequalitynm.org/> (2009)

Medica.de: “Nano-assassins” June 7th at:
[http://www.medica.de/cipp/md_medica/custom/pub/content_lang_2/oid_28264/tick
et_g_u_e_s_t/~Bacteria_Beware_of_Nano-Sized_Assassins.html](http://www.medica.de/cipp/md_medica/custom/pub/content_lang_2/oid_28264/ticket_g_u_e_s_t/~Bacteria_Beware_of_Nano-Sized_Assassins.html) (2009)

Softpedia News: “Nanokillers can destroy bacteria on implanted prosthetics”

- June 27th at: news.softpedia.com/news (2009)
- Small Times, “Bacteria assassins target staph invaders on implants” June 26 (2009)
- Biotechterms.com, June 26th at
<http://biotechterms.org/sourcebook/savelinkidquery.php3?id=3546> (2009)
- i09 We Come from the Future, “Nanoparticle breakthroughs that could save millions of lives,” June 29th at: <http://io9.com/5304074/nanoparticle-breakthroughs-that-could-save-millions-of-lives> (2009)
- Chemistry World Blog “MRS 2009 – Prosthetic limbs get a nanotech makeover,” Dec. 2nd at <http://prospect.rsc.org/blogs/cw/?p=2385> (2009)
- Inside Indiana Business by Gary Dick TV Show interview which can be viewed at: <http://www.insideindianabusiness.com/video-player.asp?id=10323>, Aug.31(2009)
- Wed elements nexus, “Limiting bacteria on PVC” June 3rd at: <http://www.webelements.com/nexus/aggregator/categories/2?page=13> (2009)
- Mixed for You Science News, Brown researchers develop new cartilage materials at: <http://www.mixedforyou.com/science/index.php?selectdate=06-03> (2009)
- Nanoscale Informal Science Education, “Bacteria killed by nano” June 15th (2009)
at: <http://www.nisenet.org/catalog/programs/surface-area>
- Nanovis advances new technologies, Inside Indiana by Gary Dick, August 31st (2009)
at: <http://www.insideindianabusiness.com/life-sciences.asp?detail=true&id=176>
- Life science firm to use space at Purdue Center July 16th
at: <http://www.insideindianabusiness.com/newsitem.asp?id=36658> (2009)
- Providence Business News, Study; Nanoparticles kill bacteria, Aug. 10th (2009)
- Providence Business News, Indo-Institute on Biomaterials Research, March 2 (2009)
- Providence Business News, STAC Award 1.5 M in Research, Jan 28 (2009)
- Providence Journal, Brown Researchers Devise New Front Against Infection, Jul 9(2009)
- Cover page American Ceramic Society Bulletin, to appear (2010)
- Ivanhoe Medical Breakthrough, ABC News Affiliate, story on magnetic nanoparticle Research to decrease infection, appear throughout year (2010)
- Today at Brown*, January “Prof. Webster Redesigns Implants” (2009)
- Interviewed by DovePress concerning the future of nanomedicine available at: www.dovepress.com (2009)
- On-line Course Gives Students a Taste on Engineering (2010)
Today at Brown
- Indo-U.S. Science and Technology Forum Newsletter, “Implanted Wellness” (2010)
2(2): 4-6 (story on Prof. Webster and the Indo-U.S. Center for Biomaterials for Healthcare)
- The Center for Restorative and Regenerative Medicine Newsletter, “Prof. Webster Received Significant Funding” 6:1 (story on prof. Webster’s research) (2010)
- “Four Graduate Students Win Biomaterials Awards”, *Today at Brown* (2010)
- WIREs Author Spotlight (2010)
- New Nanotechnology Patent Issued: Metallic Nanoparticles As Orthopedic Implants at <http://brownengineering.blogspot.com/2010/10/new-nanotechnology-patent-issued.html> (2010)
- Taylor Selected for VA Honors at: (2010)
<http://brownengineering.blogspot.com/2010/08/taylor-selected-for-veterans-affairs.html>

- Lei Earns First Place Award from Sigma Xi Northeast Regional Conference (2010)
at: <http://brownengineering.blogspot.com/2010/08/yang-earns-first-place-award-from-sigma.html>
- Documentary Appearance “Getting Back on Their Feet II” (2010)
by Richard Longland at:
http://brownengineering.blogspot.com/2010_07_01_archive.html
- Cover Story, “Nanophase Ceramics for Improved Drug Delivery: Current (2010)
Opportunities and Challenges” American Ceramic Society Bulletin, June
- Prof. Webster to Participate in Research Delegation to China (2010)
At: <http://brownengineering.blogspot.com/2010/05/prof-webster-to-participate-in-us.html>
- “Hurt and Webster Publish New Book on Business and Safety Issues in the (2010)
Commercialization in Nanotechnology” at:
<http://brownengineering.blogspot.com/2010/04/hurt-and-webster-publish-business-and.html>
- “Prof. Webster and Erik Taylor’s Implant Research Highlighted” (2010)
At: <http://brownengineering.blogspot.com/2010/02/prof-webster-and-erik-taylors-implant.html>
- “Society for Critical Care Citation Award” (2010)
At: <http://brownengineering.blogspot.com/2010/01/society-of-critical-care-2010-citation.html>
- Science Daily* “Researchers Create Nanopatch for the Heart,” May 15 (2011)
- Insciencas, Organization* “Researchers Create Nanopatch for the heart,” May 19 (2011)
- Hindustan Times*, “IIT Kanpur, U.S. Scientists Pioneer Heart Cells Revitalization,” May 23 (2011)
- Health Destination*, “India and US Discover a Black Nano Band-Aid that Brings Life Back to Dead Heart Tissue,” May 24 (2011)
- Mumbai Mirror*, “Nano-patching a Broken Heart,” May 24 (2011)
- Innovation Daily News*, “Nanopatch Could Reverse Heart Attack Damage,” May 19 (2011)
- AglaSEM*, “IIT Kanpur and US Scientists Pioneer Heart Cells Revival Tech,” June 13th (2011)
- Polymer Solutions*, “Polymer Band-Aid-For-Heart,” May 27 (2011)
- Breakthrough Medical Digest News*, “Researchers Create Nanopatch for the Heart,” May 15 (2011)
- Materials.today*, “Researchers Create nanopatch for the Heart,” May 21 (2011)

More media press for 2011 – 2015 available upon request.

PROFESSIONAL SOCIETIES

Governing Councils

Biomedical Engineering Society
Society for Biomaterials

Member

American Association for the Advancement of Science
American Ceramic Society
American Institute of Chemical Engineers
American Society for Engineering Education
American Society for Nanomedicine
Biomedical Engineering Society
International Society for Ceramics in Medicine
Materials Research Society
Society for Biomaterials

CURRENT STUDENTS SUPERVISED

Total Lab: 24 students

(7) Research Mentor:

Keiko Tarquinio, M.D. (Pediatrics)
Shadi Ali Sulieman Al Ekish, M.D. (Urology)
Geetha Manivasagam, Ph.D. (VIT, India)
Dragan Golijanin, M.D. (Urology)
Erik Taylor, Ph.D. (BME, 2012)
Batur Ercan, Ph.D. (NEU)
Amit Roy, Ph.D. (NEU)

(10) Ph.D. Current Graduate Students:

George Aninwene III (BioE, 2014), “Nanosurfaces as Improved Lubricants and Anti-bacteria Surfaces”
Linlin Sun (BioE, 2014), “Injectable Self-Assembled Chemistries for Orthopedic Applications”
Qi Wang (BioE, 2014), “Nanostructured Selenium Coatings to Reduce Infection”
Garima Bhardwaj (ChemE, 2018), “Nanostructured HA to Decrease Bacteria Growth”
Ben Geleich (BioE, 2016), “Developing Polymersomes to Decrease Bacteria Growth”
Ece Alsplan (ChemE, 2018), “Nanomaterials for Decreasing Bacteria Functions”
Stanley Chung (ChemE, 2018), “Electrospinning to Promote Stem Cell Interactions”
Di Shi (ChemE, 2018), “Understanding Nanoparticle Passage Through the Blood Brain Barrier”
Michelle Stolzhoff (BioE, 2018), “Decreasing Macrophage Growth with Selenium”
Luting Liu (ChemE, 2018), “Polymeric Nanosensors”

(5) M.S. (thesis-completing):

Noah St. James (ChemE, 2014), “Mimicking Intestinal Nanotopographies”
Alyssa D’Antonio (ChemE, 2014), “Understanding Selenium Inflammation”
Kanny Chung (Pharm Sci, 2014), “Releasing Anti-cancer Drugs from Self-assembled Materials”
Gujie Liu (Pharm Scie, 2014), “Improving Bone Growth Through Nanomaterials”
Di Shi (Pharm Sci, 2014), “Developing Iron Oxide Nanoparticles for Blood Brain Barriers”

(2) Undergraduate Students:

Gloria Singleton (ChemE, 2015)
Paul Maschoff (ChemE, 2015)

STUDENTS GRADUATED AND FELLOWSHIP RESEARCH SPONSORED

Total: 129

(5) Visiting Faculty

Suprabha Nayar, Ph.D. (National Metallurgical Laboratory, India)
Bikram Basu, Ph.D. (IIT Kanpur)
Dhirendra Khatti, Ph.D. (IIT Kanpur)
Rajya Lakshmi Amancherla (NML, India)
Suprabha Nayar (NML, India)

(1) Medical Fellowship

Dan Aaron, M.D. (Orthopedics)

(6) Post-doctoral Students:

Jeremiah Ejiofor (2004; unknown)
Ganesh Balasundaram (2004-2006; Nanovis, Inc.)
Perla Venu (2005; unknown)
Peishan Liu-Synder (2006-2007; Boston Scientific)
Dongwoo Khang (2007-2008; KIST, Seoul, South Korea)
Rajesh Pareta (2007-2009; Wake Forest University)

(34) Ph.D.:

Rachel Price (2004), “Design, Synthesis, and Evaluation of Nanofibered Materials for Orthopedic Applications” (Research Scientist, Med Institute Cook)
Jennifer McCann (2005), “An Investigation of the Laminar Flow-induced Biomechanical Communication Between Vascular Endothelial and Smooth Muscle Cells” (Technician, Purdue University)
Derick Miller (2005), “Design, Synthesis, and Evaluation of Polymeric Biomaterials with Nano-structured Surface Features for Vascular Applications” (Researcher, Atomic Force Microscopy, Inc.)
Grace Park (2005), “Nanostructured Polymers for Cartilage Applications” (Research Scientist, Beckton Dickenson)

Janice McKenzie (2005), “Carbon Nanotubes for Neural Applications” (Research Director, NanoVis, start-up company based on Dr. Webster’s research)

Dongwoo Khang (2005), “Aligned Carbon Nanotubes for Orthopedic Applications” (Post-doc, Seoul National University)

Ai Lin Chun (2005), “Investigation of Helical Rosette Nanotubes for Orthopedic Applications,” (Associate Editor, *Nature Bionanotechnology*)

Jie Liu (Chemistry, 2006), “Nanoparticles for Treating Osteoporosis” (Post-doc, Purdue University)

Michiko Sato (MSE, 2006), “A Novel Hydroxyapatite Material and Titanium Coating Method” (Researcher, Tokyo Institute of Technology)

Huinan Liu (BME, 2008), “Novel Three-dimensional Nanocomposites Printing for Orthopedic Applications” (Research Scientist, Nanomech, Inc.)

Chang Yao (BME, 2008), “Anodized Nanoporous Metals for Drug Delivery Applications” (Research Scientist, Nanovis, Inc.)

Jong Youl Kim (Visiting Graduate Student from Yonsei University, 2008), “Macrophage Functions on Aligned Carbon Nanotubes on Polymers” (Post-doc, Yonsei University)

Lijie Zhang (BME, 2009), “Hydrogels with Helical Rosette Nanotubes for Orthopedics Applications” (Post-Doc, Rice University)

Sirinrath Sirivisoot (Electrical Engineering, 2009), “Carbon Nanotube Based Sensors for Detecting New Bone Growth Surrounding Implants” (Post-doc; Wake Forest Institute of Regenerative Medicine)

Jing Lu (BME, 2010), “Nanopatterns on Ti for Enhancing Vascular Stents”

Sabrina Puckett (BME, 2009), “Ti Nanopatterns for Directing Bone Growth”

Batur Ercan (BME, 2010), “Carbon Nanotubes Grown from Anodized Ti for Stem Cell Differentiation” (Harvard)

Nheim Tran (Physics, 2011), “Nanoparticles for Fighting Bone Diseases” (Department of Orthopedics, Brown Medical School)

Justin Seil (BME, 2011), “Novel Nanostructured Piezoelectric Materials for Nerve Guidance Channels” (Brown)

Yupeng Cheng (Chemistry, 2010), “Helical Rosette Nanotubes as Drug Delivering Devices” (Department of Orthopedics, Brown Medical School)

Phong Tran (Physics, 2009), “Nanostructured Selenium for Treating Bone Cancer” (University of Melbourne)

Lie Yang (Materials Engineering, 2010), “Nanostructured Diamond for Orthopedic Applications” (Brown)

Young Wook Chun (BME, 2010), “Nanostructured Polymers for Urological Applications” (Vanderbilt)

Siddhi Gupta (NML, 2011), “PVA Gels for Cartilage Applications”

Deepti Dyondi (IIT Bombay, 2011), “Growth Factor Released Hydrogels for Cartilage Applications”

Sushma Kalmodia (IIT Kanpur, 2011), “Genotoxicity of Hydroxyapatite Based Nanoparticles”

Shilpee Jain (IIT Kanpur, 2011), “Nanostructured Nerve Guidance Channels”

Alok Kumar (IIT Kanpur, 2011), “Hydroxyapatite Mullite for Orthopaedic Applications”

Lijuan Zhang (Chemistry, 2012), “Decreasing Cancer Cell Functions Through Nanotechnology”
Mary Machado (BME, 2014), “Developing Anti-bacteria Nanostructured Endotracheal Tubes”
Yongchen Wang (Chemistry, 2014), “Understanding Altered Cancer Cells Responses to Nanostructured Polymers”
Gozde Durmus (BME, 2014), “Coating Nanostructured Implants with Fructose to Reduce Infection”
David Stout (BME, 2014), “Carbon Nanotubes for Cardiac Patch Applications”
Xiangling Meng (Chemistry, 2015), “Injectable Self-Assembled Chemistried for Cardiac Application”

(1) M.D./Ph.D.:

Nate Pitner (2005), “Understanding Calcium Ion Channels for the Mechanical Properties of Bone” (completing medical school)

(29) M.S. (all thesis completing):

Rachel Danczyk (2002), “Preparation, Characterization, and Functionality of Immuno-surfaces for Biosensor Applications” (M.D. Student, Indiana University Medical School)
Daniel Freytes (2002), “Characterization of the Biaxial Mechanical Behavior of Multilaminated Extracellular Matrix Devices and the Immunological Response to SIS in a Mouse Model” (Ph.D. Student, University of Pittsburgh)
Elizabeth Massa (2002), “Hydroxyapatite Doped with Trivalent and Divalent Ions” (Research Scientist, Biomet)
Anil Thapa (2002), “Design, Synthesis, and Evaluation of Polymeric Biomaterials with Nano-structured Surface Features for Bladder Applications” (Junior Grant Writer, Resodyn, Inc.)
Jennifer McCann (2003), “An Investigation of the Laminar Flow-induced Biomechanical Communication Between Vascular Endothelial and Smooth Muscle Cells” (Ph.D. Student, Purdue University)
Derick Miller (2003), “Design, Synthesis, and Evaluation of Polymeric Biomaterials with Nano-structured Surface Features for Vascular Applications” (Ph.D. Student, Purdue University)
Megan Pattison (2003), “Nanostructured Polymer Scaffolds for Bladder Applications” (Sales Associate, Med Institute Cook)
Michiko Sato (MSE, 2003), “A Novel Hydroxyapatite Material and Coating Method” (Ph.D. Student, Purdue University)
Paul Tuttle (2004), “Design of Novel Biosensor Membranes” (Medical Student)
Michelle Park (CE, 2005), “Nanophase Alumina for Bacteria Filtration Devices” (Unknown)
Saba Choudhary (2006), “Use of Nanometals for Vascular Stents” (Researcher, NIH)
Huinan Liu (MSE, 2006), “Nanocomposites for Orthopedic Applications” (Ph.D. Student, Brown University)
Chang Yao (MSE, 2006), “Anodized Titanium for Orthopedic Implants” (Ph.D. Student, Brown University)

Kayla Calvert (MSE, 2006), “Bone Analogs for Mechanical Testing” (Ph.D. Student, Purdue University)

Ashwini Ranjan (BME, 2008), “Nanostructured Hydrogels for Cardiac Tissue Regeneration” (Genzyme, Inc.)

Jarrold Lynn (P.R.I.M.E., 2007), “Carbon Nanotube Based Sensors for Detecting New Bone Growth Surrounding Implants”

Eileen Wang (P.R.I.M.E., 2008), “Helical Rosette Nanotubes for Orthopedic Applications”

Kelly Schneiderman (P.R.I.M.E., 2008), “Helical Rosette Nanotubes for Cartilage Applications”

Paul Brown (P.R.I.M.E., 2009) “Biosensor for orthopedic applications”

Whitney Sharp (P.R.I.M.E., 2009) “Novel Sensors for Implants”

Jose Ramos (PRIME, 2010), “NanoSeleno”

Jon Brown (PRIME, 2010), “NanoSeleno”

An Son Leong (PRIME, 2010), “NanoSeleno”

Deborah Gorth (BME, 2011), “An Ecosystem Study of Nanoparticle Toxicity”

Maswazi Sihlabela (BME, 2012), “Natural Anti-biotic Chemistries”

Perry Ross (BME, 2012), “Anodizing Color Coded Titanium”

Jose Ramos (BME, 2012), “Toxicity of Selenium Nanoparticles”

Kim Kummer (BME, 2012), “Anodizing Titanium to Reduce Infection”

Lucy Weng (BME, 2012), “Nanostructured Magnesium Oxide for Orthopedic Applications”

(9) B.S. (Biomedical Engineering Honor’s Thesis – only at Brown):

Joseph Carpenter, (BME, 2008), “Nanostructured Polymers for Improved Vascular Applications,”

Phin Peng Lee (BME, 2009), “Nanometer Surface Textured Titanium Surfaces for Enhancing Skin Growth”

Riaz Gillani (BME, 2009), “Improved Properties of Bone Cement Through Nanotechnology”

Kangyi Zhang (BME, 2009), “Elucidating the Photoactive Mechanism of a Novel Metal-Polymer Hybrid Surface Coating” (Nanopolis, Signapore)

Shang Song (BME, 2010), “Drug Delivery for Helical Rosette Nanotubes”

Meleha Ahmad (BME, 2011), “Nanostructured Enthesis for Orthopedic Applications”

Holley Laurisden (BME, 2011), “Nanostructured Titanium for Reducing Infection”

Melissa Tsang (BME, 2011), “Nanostructured Bladder Materials”

Daniel Cheng (BME, 2007-2009), “AFM Imaging of Nanostructured Endotracheal Tubes”

(38) B.S. (Undergraduate Research Projects – only at Brown):

Alyssa Ricker (BME, 2008), “Novel Nanostructured Bone Cement for Orthopedic Applications”

Ariel Cohen (Biology, 2008), “Soft Tissue Formation on Ionic Fusion Nanostructured Coatings”

Alex Reising (Materials Engineering, Purdue; conducted research at Brown, 2006),
 “Bone Forming Cell Functions on Ionic Fusion Nanostructured Coatings”

George Aniwene (BME, University of Maryland at Baltimore County; conducted
 research at Brown, 2006-2007), “Drug Elution from Anodized Ti”

Harry Samaroo (BME, 2006-2007), “Nanostructured Nitinol for Vascular Stents”

Aditi Dubey (BME, 2006-2007), “Macrophage Function on Nanostructured Ceramics”

Kevin Burns (Biology, 2006-2007), “Anodized Metals for Cartilage Applications”

Liz DiCocco (Engineering, 2006-2007), “Synthesis of Nano Hydroxyapatite for
 Orthopedic Applications”

Joe Carpenter (BME, 2006-2008), “Nanostructured Polymers for Vascular Applications”

Yael Horovitz (Engineering, 2008), “Nanostructured Materials for Treating Organ
 Replacement”

Erik Taylor (BME, University of Texas at Austin, conducted research at Brown, 2007),
 “Magnetic Nanoparticles for Treating Osteoporotic Bone”

Phin Pheng Lee (Engineering, 2007-2009), “Nanostructured Polymers for the Meniscus”

Deb Maheto (Engineering, 2007-2009), “Magnetic Nanoparticles for Treating Bone
 Diseases”

Jennifer Wang (Engineering, 2007-2009), “Developing Textiles for Cartilage
 Replacement”

Riaz Gillani (BME, 2008-2010), “Improved Bone Cements for Orthopedic Applications”

Megan Dansby (BME, 2008-present), “Creating Nanostructured UHMWPE for
 Orthopedic Applications”

David Stout (Leadership Alliance, BME, 2009), “Live Cell Imaging of Cell Extensions
 on Nanomaterials”

Melissa Alvarado (Leadership Alliance, BME, 2009), “Nanostructured Piezoelectric
 Materials for Nerve Applications”

Melanie Zile (BME, 2011), “Nanostructured Polymers for Orthopedic Applications”

Theresa Raimondo (BME, 2011), “E-beam Evaporation for Creating Nanostructured
 Features”

Christopher Hartman (BME, 2011), “Anodized Nanostructures to Control Tissue
 Response”

Amy Liang (BME, 2012), “Fibroblast Functions in the Presence of Magnetic
 Nanoparticles”

Maswazi Sihlabela (BME, 2011), “Migration of Bone Cells on Nano-diamond”

Jennifer Hsu (BME, 2009), “Functionalizing Nano-diamond for Orthopedic
 Applications”

Maria Santiago (Leadership Alliance, BME, 2011), “Carbon Nanotubes for Cardiac
 Applications”

Emilia Raimondo (BME, 2012), “Nanostructured Polymers for Controlling Cell
 Responses”

Tiffany Tseng (BME, Duke, 2012), “Injectable Materials for Cardiac Applications”

Ece Alpaslan (Istanbul Tech. University, 2012), “Diameter of Nanotubes Influence
 Bacterial Properties”

Eli Fine (BME, 2010), “Vascular Applications of Self-Assembled Chemistries”

Daniel Hoff (BME, 2012), “Developing Anti-bacterial Surfaces”

Amy Mei (Biology, 2012), “Tranforming IOLs to Reduce Infection”

Douglas Hall (BME, 2012), “Iron Oxide Nanoparticle Toxicity”
Jennie Yoo (BME, 2012), “Magnetic Nanoparticles to Reduce Infection”
Kohana Leuba (BME, 2012), “Gene Expression in Osteoblasts Exposed to Magnetic Nanoparticles Coated with Ceramics”
Yosuke Kurokawa (BME, 2012), “Nanoparticle Transport Through the Blood Brain Barrier”
Jara Crear (BME, 2012), “Anodizing Titanium to Reduce Cervical Cancer”
Benjamin Geilich (Neuroscience, 2012), “Electrospinning for Neural Applications”
Giuliano Marostica (BME, 2013), “Developing Nanostructured Cardiac Patches”

(6) Elementary and Secondary Teachers Supervised:

O. Adegbesan (NSF GK-12, 2007), “Helical rosette nanotubes embedded with hydroxyapatite for orthopedic applications”
A. Nuriddin (NSF GK-12, 2007), “Micropatterns of nanoparticulate SiO₂ for nerve guidance channels”
A. Romez (NSF GK-12, 2008), “Developing anti-cancer materials for orthopedics”
S. Sun (NSF G,K – 12, 2009), “Better Biosensor for Orthopedics”
E. Nugent (NSF G, K – 12, 2011), “Hydroxyapatite Coated Nanoparticles”
E. Schibuk (NSF G, K – 12, 2011), “Antibacterial IOLs”

AWARDS AND HONORS OF STUDENTS/FELLOWS IN THE LAB

Elizabeth Massa (M.S., 2002): 1st Place Orthopedic Sub-division of Society for Biomaterials Graduate Student Award, 2002.
Anil Thapa (M.S., 2002): 5th Place Tissue Engineering Sub-division of Society for Biomaterials Graduate Student Award, 2002.
Sarina Kay (undergraduate during summer of 2001): 1st Place Orthopedics Sub-division of Society for Biomaterials Undergraduate Student Award, 2002.
Luke Gutwein (undergraduate, 2003): Biomedical Engineering Society Outstanding Undergraduate Student Award, 2002.
Janice McKenzie (Ph.D., expected 2005): 2nd Place Proteins and Cells at Interfaces Sub-division of Society for Biomaterials Graduate Student Award, 2002.
Janice McKenzie (Ph.D., expected 2005): Honorable Mention for Sigma Xi Graduate Student Research Competition, 2002.
Derick Miller (M.S., 2003; Ph.D., expected 2005): 5th Place Proteins and Cells at Interfaces Sub-division of Society for Biomaterials Graduate Student Award, 2002.
Jennifer McCann, (M.S., 2003; Ph.D., expected 2005): Department of Biomedical Engineering at Purdue Geddes-Laufman-Greatbatch Award, 2002.
Jennifer McCann (M.S., 2003; Ph.D., expected 2005): 1st place for Sigma Xi Graduate Student Research Competition, 2003.
Rachel Price (Ph.D., 2004): 1st Place, Proteins and Cells at Interfaces Sub-division of Society for Biomaterials Graduate Student Award, 2003.
Rachel Price (Ph.D., 2004): Chorafas Prize Finalist, Purdue, 2003.

Grace Park (Ph.D., expected 2005): 3rd Place, Proteins and Cells at Interfaces Sub-division of Society for Biomaterials Graduate Student Award, 2003.

Grace Park (Ph.D., expected 2004): Honorable Mention Student Travel and Professional Development Award for the Society for Biomaterials Graduate Student Award, 2003.

Michiko Sato (M.S., 2003; Ph.D., expected 2005): Special Contribution Award to MRS Spring Meeting, 2003.

Karen Ellison (undergraduate during summer of 2002): 2nd Place Tissue Engineering Sub-division of Society for Biomaterials Undergraduate Student Award, 2003.

Rachel Price (Ph.D., 2004): Outstanding Graduate Student Award, Biomedical Engineering Society, 2003.

Ai Lin Chun (Ph.D., expected 2005): Best Poster Award, Trends in Nanotechnology International Conference (Salamanca, Spain), 2003.

Rachel Price (Ph.D., 2004): Department of Biomedical Engineering at Purdue Fearnot Award, 2003.

Megan Pattison (M.S., 2003): Department of Biomedical Engineering at Purdue Outstanding Thesis Award, 2003.

Rachel Price (Ph.D., 2004): 3rd Place Outstanding Graduate Student Award, Society for Biomaterials, 2004.

Ai Lin Chun (Ph.D., expected 2005): 1st Place for Sigma Xi Graduate Student Research Competition, 2004.

Huinan Liu (Ph.D., expected 2006): Honorable Mention for Sigma Xi Graduate Student Research Competition, 2004.

Megan Pattison (M.S., 2003): Materials Research Society Graduate Student Silver Award, 2004.

Rachel Price (Ph.D., 2004): Department of Biomedical Engineering at Purdue Geddes-Laufman-Greatbatch Award, 2004.

Rachel Price (Ph.D., 2004): Outstanding Graduate Student, Purdue University, 2004.

Rachel Price (Ph.D., 2004): Council of Graduate Schools/University Microfilms International Distinguished Dissertation Award, 2004.

Derick Miller (M.S., 2003; Ph.D., expected 2005): Outstanding Graduate Student Presentation, Northeast Bioengineering Conference, Springfield, MA, 2004.

Brian Ward (M.D./Ph.D., expected 2009): Biomedical Engineering Society Outstanding Undergraduate Student Award, 2004.

Janice McKenzie (Ph.D., expected 2005): Outstanding Graduate Student Award, Biomedical Engineering Society, 2004.

Zach Schwab (undergraduate, 2004): Honorable Mention SURF Poster Competition, Purdue, 2004.

Elizabeth Nichols (undergraduate, 2004): Honorable Mention SURF Poster Competition, Purdue, 2004.

Janice McKenzie (Ph.D., expected 2005): Chorafas Prize Finalist, Purdue, 2004.

Janice McKenzie (Ph.D., expected 2005): Department of Biomedical Engineering at Purdue Geddes-Laufman-Greatbatch Award, 2004.

Janice McKenzie (Ph.D., expected 2005): Professional Development Award, Society for Biomaterials, 2005.

Grace Park (Ph.D., expected 2005) Professional Development Award, Society for Biomaterials Honorable mention, 2005.

Brian Ward (Ph.D., expected 2005): Outstanding Graduate Student Award Finalist, Summer Bioengineering Conference, 2005.

Huinan Liu (Ph.D., expected 2006): First Place for Materials Engineering Graduate Student Association Competition, Purdue University, 2005.

Michiko Sato (Ph.D., 2006): Paper (Increased osteoblast functions on undoped and yttrium-doped nanocrystalline hydroxyapatite coatings on titanium”, *Biomaterials* 27:2358-2369 (2006)) in top 25 of papers downloaded in Biomaterials for 2006.

Ganesan Balasundaram (post-doctoral researcher, 2004-2006): Paper (“Using hydroxyapatite nanoparticles and decreased crystallinity to promote osteoblast adhesion similar to functionalizing with RGD ,” *Biomaterials* 27 (14): 2798-2805 (2006)) in top 25 of papers downloaded in Biomaterials for 2006.

George Aninwene (undergraduate researcher Leadership Alliance summer 2006): 1st place research presentation at the Annual Biomedical Research Conference for Minority Students (ABRCMS), Anaheim, CA, 2006.

Ganesan Balasundaram (post-doctoral researcher, 2004-2006): Research image highlighted on cover of *Journal of Materials Chemistry*, 16(38), 2006.

Justine Seil (Ph.D., expected 2010): 3rd Place Graduate Student Presentation Award, 33rd Annual Northeast Bioengineering Conference, Stony Brook, NY, 2007.

Sabrina Puckett (Ph.D., expected 2010): Travel Recognition Award, 33rd Annual Northeast Bioengineering Conference, Stony Brook, NY, 2007.

Lijie Zhang (Ph.D., 2009): Student Travel Achievement Recognition Award, Society for Biomaterials, Chicago, IL, 2007.

Sabrina Puckett (Ph.D., expected 2010): Pre-Doctoral Associated Health Rehabilitation Research Fellow, VA, 2007.

Ashwini Ranjan (Ph.D., expected 2010): Young Investigator Award Finalist, American Academy of Nanomedicine, San Diego, CA, 2007.

Huinan Liu (Ph.D., 2008): Joukowsky Family Outstanding Dissertation Award, 2008.

Huinan Liu (Ph.D., 2008): Sigma Xi Outstanding Ph.D. Thesis Award, 2008.

Joseph Carpenter (B.S., 2008): Outstanding Undergraduate Biomedical Engineering Honor’s Thesis, 2008.

Sirinrath Sirivisoot (Ph.D., 2009): Highlighted for talk at the MRS International Materials Research Conference in Chongqing, China, Wednesday, June 11, 2008 (see http://www.mrs.org/s_mrs/doc.asp?CID=14934&DID=212426).

Dongwoo Khang (post-doctoral student): paper: “The role of nanometer and sub-micron surface features on vascular and bone cell adhesion on titanium” highlighted in top 25 of the Hottest Biomaterials Articles (2008)

Sirinrath Sirivisoot (Ph.D., expected 2008): paper: “Multiwalled carbon nanotubes enhance electrochemical properties of titanium to determine *in situ* bone formation” top 10% of all downloaded papers in *Nanotechnology* (2008)

Rajesh Pareta (post-doctoral student): paper: “Increased osteoblast density in the presence of novel calcium phosphate coated magnetic nanoparticles” top 10% of all downloaded papers in *Nanotechnology* (2008)

Huinan Liu (Ph.D., 2008): Graduate Excellence in Materials Science (GEMS) Sapphire Award from the American Ceramic Society (2008)

Lijie Zhang, (Ph.D., 2009) article in Nanotechnology: "Biologically inspired rosette nanotubes and nanocrystalline hydroxyapatite hydrogel nanocomposites as improved bone substitutes", Vol 20, pp175101 (2009), cited as top 10% of all downloaded articles (2009)

Lijie Zhang, (Ph.D., 2009) Student Travel Achievement Recognition Award, Society for Biomaterials, San Antonio, TX, 2009. (2009)

Lijie Zhang (Ph.D., 2009) Article: Nanotechnology and nanomaterials: Promises for improved tissue regeneration by Lijie Zhang and T.J. Webster in NanoToday 4(1): 66-80, 2009 rated as ScienceDirect top 25 hottest (#1) article and #8 among ~111 journals in materials science fields (2009)

Lijie Zhang (Ph.D., 2009) Sigma Xi Outstanding Graduate Student Award, Brown (2009)

Lijie Zhang (Ph.D., 2009) Joukowsky Family Outstanding Dissertation Award (2009)

Kieko Tarquinio (M.D.) Citation Award for the Society for Critical Care Medicine (2010)

Phong Tran (Ph.D., 2010), Society for Biomaterials STAR Award (2010)

Erik Taylor (Ph.D., 2012), Society for Biomaterials STAR Award (2010)

Lei Yang (Ph.D., 2010), Society for Biomaterials STAR Award (2010)

Yupeng Chen (Ph.D., 2010), Society for Biomaterials STAR Award (2010)

Phong Tran (Ph.D., 2010), Department of Physics's Beyer Award (2010)

Lei Yang (Ph.D., 2010) First Place Undergraduate and Graduate Student Poster Award at the Sigma Xi Northeast Regional Conference (2010)

Melissa Tsang (undergraduate, 2011) Biomedical Engineering Society Undergraduate Student Award (2010)

Melissa Tsang (undergraduate, 2011) Brown University Outstanding Research Award (2010)

Erik Taylor (Ph.D., 2011) VA Pre-doctoral Fellowship (2010)

Erik Taylor (Ph.D., 2011) Fullbright Fellowship (2011)

Lei Yang, (Ph.D., 2010) Sigma Xi National Graduate Student Award (2011)

David Stout (Ph.D., 2015), National Science Foundation Fellowship (2011)

David Stout (Ph.D., 2015), Finalist AIChE Outstanding Graduate Student Res. (2011)

Erik Taylor (Ph.D., 2012), Biomedical Engineering Society Outstanding Graduate Student Research Award (2011)

Keiko Tarquinio (M.D.), Outstanding Clinical Research, Society for Biomaterials (2011)

Lei Yang (Ph.D., 2010), Graduate Student Research Award, Society for Biomaterials (2011)

Lei Yang (Ph.D., 2010), Outstanding Chinese Graduate Student Award, Chinese Government (2011)

13 more student awards to date available upon request

COURSES TAUGHT/DEVELOPED

Graduate

Biomaterials (EN149)

Fall 2006; 29 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.2/5.0; Availability and Helpfulness of Instructor: 4.1/5.0.

Fall 2007; 24 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.4/5.0; Availability and Helpfulness of Instructor: 4.4/5.0.

Fall 2008; 32 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.6/5.0; Availability and Helpfulness of Instructor: 4.7/5.0.

Fall 2009; 38 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.9/5.0; Availability and Helpfulness of Instructor: 4.8/5.0.

Fall 2010; 34 students; School of Engineering Course Evaluation: Quality of Lecture: 4.9/5.0; Availability and Helpfulness of Instructor: 4.8/5.0.

Fall 2011; 43 students; evaluations not yet available.

Biological Impacts of Nanomaterials (EN292)

Spring 2007; 23 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.9/5.0; Availability and Helpfulness of Instructor: 4.8/5.0; Value of Homework 3.5/5.0; Plan of Course: 4.8/5.0.

Toxicity of Nanoparticles (EN 2912)

Spring 2008; 33 students; Division of Engineering Course Evaluation: Quality of Lecture: 4.6/5.0; Availability and Helpfulness of Instructor: 4.4/5.0.

Undergraduate

Independent Studies in Engineering (EN196)

Fall 2006; 3 students

Spring 2007; 2 students

Fall 2007; 4 students

Spring 2008; 6 students

Fall 2008; 4 students

Spring 2009; 3 students

Fall 2009; 6 students
Spring 2010; 9 students
Fall 2010; 13 students
Spring 2011; 14 students
Fall 2011: 5 students

Physical Chemistry of Materials (EN141)

Fall 2006; 8 students; Professor Average: 2.16/4.0; Class Average: 2.32/4.0

Thermodynamics (EN 72)

Spring 2009; 98 students; Professor Average: 3.46/4.0; Class Average: 3.32/4.0

Spring 2010; 81 students; Professor Average: 3.75/4.0; Class Average: 3.82/4.0

High School

Brown Continuing Education On-Line Course Developed “Exploring Engineering”,
Fall, 2009; Taught Summer 2010 (22 students; overall course: 4.9/5.0), Summer
2011 (89 students; overall course 4.9/5.0), and Fall 2011 (19 students; overall
course 4.9/5.0).

CENTER DIRECTOR POSITIONS

Director, Indo-U.S. Center for Biomaterials, 2008 to 2010.

UNIVERSITY COMMITTEE ACTIVITIES

Chair, Northeastern University Provost Search Committee, 2014-present.

Chair, Biomedical Engineering Graduate Studies (Engineering), 2009 to 2012.

Board of Directors, Sheridan Center, 2008 to 2012.

Member, Conflict of Interest Committee, 2008 to 2012.

Member, Science Education Center Advisory Board, 2009 to 2012.

Member, Brown University Resource Committee, 2010 to 2012.

Member, Brown University Return of ROTC Committee, 2011.

Member, Advising Team Building for High Risk Undergraduates, 2009 to 2010.

Member, Entrepreneurial Faculty Search Committee, School of Engineering, 2010 to
2012.

Director, Indo-U.S. Center for Biomaterials Seminar Series, 2009 to 2012
(approximately 1 speaker per semester).

Director, Biomedical Engineering Seminar Series, 2006 to summer 2007 (approximately
1 speaker per month).

Assistant Dean of BioMed Search Committee, committee, abandoned when Dean of
BioMed stepped down, 2007.

Division of Engineering Representative, Undergraduate Science Education Committee,

2006 to 2007.
Biomedical Engineering Representative, Division of Engineering Graduate Studies
Committee, 2006 to summer 2007.
Member, Hazelton Professorship New Faculty Hire Committee, 2006 to 2007.
Member, Emerging Technologies CTSA (Clinical and Translational Science), 2006 to
2007.

OTHER UNIVERSITY ACTIVITIES

Advisor/Aid to Student Groups

Advisor, Society for Biomaterials, Student Club, 2014 – present.
Randall Sophomore Advisor (select group of outstanding Sophomore Advisors), 2010 to
2012.
Advisor, Biomedical Engineering (BMES) Society Club, 2006 to 2012.
Freshman Student Advisor, Division of Engineering, 52 students in total and about 8
added every year, 2006 to 2012.
Member and Presenter, Study Skills Presentation to Perspective Students, Empowering
Your Future Day, Brown University, 2006 to 2012.
Faculty Advisor, NSF G, K-12 Site, 2007 to 2012.

Presenter/Contributor for Large Proposals/Events

Co-Director with Prof. Bikramjit Basu (IIT Kanpur), Director of U.S. Affairs, Indo-U.S.
Center for Biomaterials for HealthCare, 2008.
Organizer, Showcase of Nanomedicine Research at Brown University, which assembled
program directors from NIH to hear Brown researchers discuss nanomedicine
research, May, 2006.

CONFERENCES ORGANIZED

1. 30th Annual Northeast Bioengineering Conference, Springfield, MA, 2004
(assisted in selecting symposia for technical program).
2. Co-organizer (with Prof. Blazewicz from the AGH University of Science and
Technology, Cracow, Poland), CARBON 2005, Seoul, SOUTH KOREA.
3. 31st Annual Northeast Bioengineering Conference, Hoboken, NJ, 2005.
(assisted in selecting symposia for technical program).
4. Co-organized (with Profs. Reinhoudt (Netherlands) and Okano (JAPAN)),
Biomedical Application on Nano Technologies, International Conferences
Materials and Technologies, Sicily, ITALY, 2006.
5. Organized the 34th Annual Northeast Bioengineering Conference, Brown
University, Providence, RI, 2008.
6. Co-organizer, THERMEC'09, Berlin, GERMANY, 2009.
- *7. Biomedical Engineering Society Annual Conference (largest gathering of
biomedical engineers), Hartford, Conn., 2011.

8. Member, International Advisory Board, International Symposium for Research Scholars (ISRS), the Biennial Symposium on Metallurgy, and Materials Science & Engineering, IIT Madras, INDIA, 2008.
9. Co-chair, International Advisory Board, 9th International Conference on Medical Applications of Novel Biomaterials and Nano-biotechnology (CIMTEC), ITALY, 2010.
10. Co-chair, 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N), Rhodes, GREECE, 2008.
11. International Board of Directors, “The future of nanomedicine,” 2nd International Congress on Image and Signal Processing (CISP 2009) and the 2nd International Conference on BioMedical Engineering and Informatics (BMEI 2009), Tianjin, CHINA, 2009.
12. BIOINFO 2010, The First International Conference on Advances in Bioinformatics and Applications, Cancun, MEXICO, 2010.
13. Co-organizer, THERMEC’11, Quebec City, CANADA, 2011.
14. International Program Committee, International Conference on Biomedical Engineering (IASTED, BioMed 2011), Innsbruck, Austria, 2011.
15. Overall Conference Chair, Biomedical Engineering Society, Hartford, CT, 2011.
16. Conference organizing committee, THERMEC, Quebec, Canada, 2011.
17. International Program Committee, International Conference on Biomedical Engineering (IASTED, BioMed 2012), Innsbruck, Austria, 2012.
18. International Program Committee, International Conference on Biomedical Engineering (IASTED, BioMed 2011), Vancouver, Canada, 2012.
19. Overall conference chair, International Journal of Nanomedicine, Providence, RI, 2012.
20. Conference planning committee, ASAIO, Nanomedicine Track, San Francisco, CA, 2012.
21. Conference planning committee, Society for Vacuum Cleaners, Providence, RI, 2012.
22. Conference planning committee, CIMTEC, Italy, 2012.
23. Biofilms Innovation, Boston, 2012.
24. 1st Annual International Translational Nanomedicine Conference, Boston, 2013.
25. 2nd Annual International Translational Nanomedicine Conference, Boston, 2014.
26. 3rd Annual International Translational Nanomedicine Conference, Montenegro, 2015.
27. 11th International Medical Applications of Novel Biomaterials and Nanotechnology Conference, Italy, 2015.

CONFERENCE SYMPOSIUM MODERATED/CHAired/ORGANIZED

Moderated/Reviewed Abstracts

1. Reviewer, 4th International Conference on Nanostructured Materials, *Nanostructured Materials* 12, Stockholm, SWEDEN, 1998.
2. Reviewer, Orthopedic Applications of Cell Interactive Biomaterials, Annual Spring Materials Research Society Meeting, San Francisco, CA, 1998.

3. Reviewer, New Microscopic Methods for Assessing Cell and Protein Interactions with Biomaterial Surfaces, Society for Biomaterials, Tampa, FL, 2002.
4. Moderator, Spine Orthopedics, Society for Biomaterials, Tampa, FL, 2002.
5. Moderator, Proteins and Cells at Interfaces II, Sixth World Biomaterials Congress in Kamuela, Hawaii, 2000.
6. Moderator, Advanced Biomaterials, Biomedical Engineering Society, Seattle, WA, 2000.
7. Moderator, Orthopedic Biomaterials, Biomedical Engineering Society, Durham, NC, 2001.
8. Moderator, Biological and Bio-inspired Materials and Devices, Annual Spring Materials Research Society Meeting, San Francisco, CA, 2004.
9. Moderator, Medical Applications: Nanosystems and Nanotechnology, 30th Annual Northeast Bioengineering Conference, Springfield, MA, 2004.
10. Moderator, Biologically-inspired Materials, Materials Research Society Annual Spring Meeting, 2004.
11. Moderator, Biomaterials and Nanotechnology V, Society for Biomaterials, Nashville, TN, 2005.
12. Moderator, Tissue Engineering and Biomaterials, Biomedical Engineering Society, Baltimore, MD, 2005.
13. Moderator, Research Experiences for Undergraduates Special Session, Biomedical Engineering Society, Baltimore, MD, 2005.
14. Moderator, Cell Attachment, e-MRS, Warsaw, POLAND, 2006.

Chair, Organized, and Moderated

1. Co-chair and organizer, Biomaterials Education, Society for Biomaterials, St. Paul, MN, 2001.
2. Co-chair and organizer, Receptor-mediated Phenomena, American Institute of Chemical Engineers Annual Conference, Reno, NV, 2001.
3. Co-chair and organizer, Biomaterials II, Materials Science and Engineering Division, American Institute of Chemical Engineers Annual Conference, Reno, NV, 2001.
4. Co-chair, Food, Pharmaceutical, Bioengineering & Fundamentals in Life Science Poster Session, Food, Pharmaceutical, Bioengineering & Fundamentals in Life Science Division, American Institute of Chemical Engineers Annual Conference, Reno, NV, 2001.
5. Chair and organizer, Protein and Cell Interactions with Nanostructured Biomaterials, Society for Biomaterials, Tampa, FL, 2002.
6. Chair and organizer, Innovative Teaching in Biomaterials Courses, Society for Biomaterials, Tampa, FL, 2002.
7. Chair and organizer, Biological Interactions with Nanostructured Materials, American Institute of Chemical Engineers, Indianapolis, IN, 2002.
8. Chair and organizer, Bio-Dental Composites, Ninth International Conference on Composites in Engineering, San Diego, 2002.
9. Chair and organizer, Nanostructured Biomaterials, American Institute of Chemical Engineers, San Francisco, CA, 2003.

10. Chair and organizer, Nano-structured Biomaterials Session, Society for Biomaterials, Reno, NV, 2003.
11. Chair and organizer, Protein and Cell Interactions with Nano-structured Biomaterials Session, Society for Biomaterials, Reno, NV, 2003.
12. Chair and organizer, Bio-nanostructured Materials, Tenth International Conference on Composites in Engineering, New Orleans, 2003.
13. Co-Chair and organizer, Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering: Tutorial Session II, Topical Conference AIChE, Austin TX, 2004.
14. Co-Chair and organizer, Mico/Nano Patterned Biomaterials for Tissue Engineering Applications, 7th World Biomaterials Congress, Sydney, Australia, 2004.
15. Chair and organizer, Nanotechnology for the Development of Biomaterials, SAMs, Wires and Nanotubes, Topical Conference AIChE, Austin TX, 2004.
16. Expert panel member, "Nanostructured materials and nanotechnology – past, current, and future," 106th Annual American Ceramic Society Meeting, Indianapolis, IN, 2004.
17. Chair and organizer, Novel Techniques for Biomaterials Instruction, Society for Biomaterials, Memphis, TN, 2005.
18. Chair and organizer, Nanotechnology for the Development of Better Orthopedic Implant Materials, Society for Biomaterials, Memphis, TN, 2005.
19. Chair and organizer, Nanostructured Biomaterials, Next Generation Biomaterials Symposium at Materials Science and Technology 2005, Pittsburgh, PA, 2005.
20. Chair, Cell Adhesion, Society for Biomaterials, Memphis, TN, 2005.
21. Chair, Bio Nano Materials & Tissues, NSTI, Boston, MA, 2005.
22. Chair and organizer, Biomedical Applications of Nano Technologies, CIMTEC, Sicily, Italy, 2006.
23. Chair and organizer, Nanotechnology for Tissue Engineering, Society for Biomaterials, Pittsburgh, PA, 2006.
24. Chair and organizer, Undergraduate Research Symposium, Biomedical Engineering Society, Chicago, IL, 2006.
25. Chair and organizer, Nanotechnologies: From Basics to Applications, Biomedical Engineering Society, Chicago, IL, 2006.
26. Chair, Advanced Processing of Biomaterials: Ceramic Biomaterials, MS&T 2006, Cincinatti, OH, 2006.
27. Chair and organizer, Nanostructured Scaffolds for Tissue Engineering, American Institute of Chemical Engineers, San Francisco, CA, 2006.
28. Chair and organizer, Nanostructured Scaffolds for Tissue Engineering, American Institute of Chemical Engineers, Salt Lake City, UT, 2007.
29. Chair and organizer, Translational Research in Nanomedicine: It Is Happening Now, Society for Biomaterials, Chicago, IL, 2007.
30. Nanoscale Science and Technology Institute, Nanotech 2007 Programming Committee, Santa Clara, CA, 2007.
31. Chair and organizer, Undergraduate Research Symposia, Annual Biomedical Engineering Society Meeting, Los Angeles, CA, 2007.

32. BIOTECHNO 2008, The International Conference on Biocomputation, Bioinformatics, and Biomedical Technologies, Technical Program Committee, Bucharest, Romania, 2008.
33. Chair and organizer, Nanostructured Scaffolds for Tissue Engineering, American Institute of Chemical Engineers, 2008.
34. Nanobiomaterials, IANano, San Francisco, CA, 2007.
35. Translational research in nanomedicine, Society for Biomaterials, Atlanta, GA, 2008.
36. NIBIB Tissue Engineering and Regenerative Medicine, NIH, Hilton Head, SC, 2008.
37. NanoBiomaterials Symposium, NSTI 2008, Boston, 2008.
38. Biomedical Engineering Educations, Biomedical Engineering Annual Meeting, St. Louis, MO, 2008.
39. Nanobiomaterials, Society for Biomaterials, San Antonio, TX, 2009.
40. Nanostructured scaffolds for tissue engineering, American Institute of Chemical Engineers, Nashville, TN, 2009.
41. Nanobiomaterials, Materials Research Society Annual Meeting, Boston, MA 2009.
42. Bioinstrumentation Track I, 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
43. Nano/Bio Materials and Applications, IC4N, Rhodes, Greece, 2009.
44. Nanomedicine for Neurological Disorders, American Academy of Nanomedicine, Potomac, MD, 2009.
45. Translation in Nanomedicine, American Academy of Nanomedicine, Potomac, MD, 2009.
46. Applications of Nanomaterials in Medicine I and II, Society for Biomaterials, Seattle, WA, 2010.
47. Applications of Nanomaterials in Medicine, Rapid Fire Session, Society for Biomaterials, Seattle, WA, 2010.
48. Materials Research Society XIX Materials Research Congress, Nanobiomaterials, Cancun, MEXICO, 2010.
49. The Second Annual Conference on Drug Discovery and Therapy, Applications of Nanomaterials in Medicine, Dubai, UAE, 2010.
50. ASME, Track 7: Nanotechnology for Tissue Engineering, Denver, CO, 2011.
51. AIChE, Nanotechnology in Regenerative Medicine, Minneapolis, MN, 2011.
52. Society for Biomaterials, International Symposium on Biomaterials Research, Orlando, FL, 2011.
53. MS&T, Medical Device Nanotechnology, Columbus, OH, 2011.

PROFESSIONAL ACTIVITIES/SERVICE

Professional Societies

1. Member, Education and Professional Development for Student Education and Program Task Force, Society for Biomaterials, 1999 to 2001.

2. Member, Proteins and Cells at Interfaces, special interest group of the Society for Biomaterials, 1999 to present.
3. Member, Materials Science and Engineering Division, American Institute of Chemical Engineers, 1999 to present.
4. Member, Food, Pharmaceutical, and Bioengineering, American Institute of Chemical Engineers, 2000 to present.
5. Member, Student Travel Award, Proteins and Cells at Interfaces, Society for Biomaterials, 2000 to 2003.
6. Member, Nanoscale Science and Engineering, American Institute of Chemical Engineers, 2001 to present.
7. Secretary/Treasurer, Proteins and Cells at Interfaces Special Interest Group, Society for Biomaterials, 2001 to 2002.
8. Vice-chair, Proteins and Cells at Interfaces Special Interest Group, Society for Biomaterials, 2002 to 2005.
9. Vice-chair, Biomaterials Education Special Interest Group, Society for Biomaterials, 2003 to 2005.
10. Chair, Proteins and Cells at Interfaces Special Interest Group, Society for Biomaterials, 2005 to 2006.
11. Chair and Member, BMES Affiliations Committee, 2006 to 2009 (Member), 2009 to present (Chair).
- *12. Member, Society for Biomaterials Governing Council, 2006 to present.
- *13. Member, Biomedical Engineering Society Governing Council, 2009 to present.
14. Founding Chair, Society for Biomaterials Nano Special Interest Group, 2009 to 2011.
15. Chair and Member, Web Editor Committee, Society for Biomaterials, 2006 to present.
16. President-elect, Society for Biomaterials, 2015.

Editor Positions

- *1. Editor-in-Chief, *International Journal of Nanomedicine*, 2005 to present.
2. Editor, *Society for Biomaterials* Web Site, 2006 to present.
3. Editorial Board, *Recent Patents on Engineering*, 2006 to present.
4. Editorial Board, *Recent Patents in Nanotechnology*, 2006 to present.
5. Editorial Board, *Journal of Biological Engineering*, 2005 to present.
6. Associate Editor, *Journal of Biomedical Nanotechnology*, 2004 to 2005.
7. Editorial Board, *Biomaterials*, 2004 to present.
8. Editorial Board, *Journal of Biomedical Nanotechnology*, 2004 to present.
9. Editorial Advisory Panel, *Expert Review of Medical Devices*, 2004 to present.
10. Editorial Board, *International Journal of Nanomanufacturing*, 2005 to present.
11. Editorial Board, *American Society for Artificial Internal Organs*, 2005 to present.
12. Scientific Advisor Board, *Nanopolis*, 2005 to present.
13. Editor of *Proteins and Cells at Interfaces Newsletter*, special interest group of the Society for Biomaterials, 2000 to 2003.

14. Reviewed book chapters for Scaffolding in Tissue Engineering (edited by Peter Ma and Jennifer Elisseeff), Marcel Dekker, Inc.
15. Editorial Board, *International Journal of Biomaterials*, 2008 to present.
16. Editorial Board, *Journal of Cancer Nanotechnology: Basic, Translational and Clinical Research*, 2008 to present.
17. Editorial Board, *Nanomedicine*, 2009 to present.
18. Editorial Board, JNMNT, 2010 to present.
19. Editorial Board, Journal of Tissue Science & Engineering, 2010 to present.
20. Editorial Board, Iranian Nano Letters (INL), 2010 to present.
21. Editorial Board, Nanoscience & Nanotechnology-Asia, 2010 to present.
22. Guest Editor, Special Issue in Patents for Nanotechnology: “Nanotechnology Related Patents for Medicine”, 2012.

Journal Reviewer

1. Review manuscripts for *Tissue Engineering* journal, 2000 to present.
2. Review manuscripts for *Applied Biomaterials* journal, 2000 to present.
3. Review manuscripts for *Biomaterials* journal, 2000 to present.
4. Review manuscripts for *Colloids and Surfaces* journal, 2000 to 2001.
5. Review manuscripts for *Scripta Materialia* journal, 2000 to 2001.
6. Review manuscripts for *Journal of Engineering Education*, 2002 to present.
7. Review manuscripts for *Journal of Biomedical Materials Research Polymer Edition*, 2002 to present.
8. Review manuscripts for *Annals of Biomedical Engineering*, 2003 to present.
9. Review manuscripts for *Journal of Biomedical Materials Research*, 2003 to present.
10. Review manuscripts for *Journal of Nanoscience and Nanotechnology*, 2004 to present.
11. Review manuscript for *Langmuir*, 2004 to present.
12. Review manuscripts for *Expert Opinion on Biological Therapy*, 2004 to present.
13. Review manuscripts for *Cellular and Molecular Life Sciences*, 2004 to present.
14. Review manuscripts for *Biomaterialia*, 2004 to present.
15. Review manuscripts for *Journal of Biomedical Materials Part B Applied Biomaterials*, 2008 to present.
16. Review manuscripts for *Journal of Applied Biomaterials*, 2008 to present.
17. Review manuscripts for *Journal of Regenerative Medicine*, 2008 to present.

Grant Review Panel

1. Grant reviewer, NIH Nanobiotechnology Initiative, 2004 to present.
2. Grant reviewer, NIH Nanoscience and Nanotechnology in Biology and Medicine, 2004 to present.
3. Grant reviewer, MBRS-SCORE Program, Puerto Rico, 2005.
4. Grant Reviewer, Postgenomic Biomedicine Nanoscience and Nanotechnology, Iceland, 2005.

5. Grant Reviewer, NIH NIDCR, 2005 to present.
6. Grant Reviewer, U.S. State Department, 2004.
7. Grant reviewer, Tulane University Strategic Planning Research Initiatives, 2003.
8. Grant reviewer, Oral Biology in Medicine Study Section, NIH, NICDR, 2001 to 2002.
9. Grant reviewer, Swiss National Science Foundation, Mathematics, Natural and Engineering Science Division, 2001 to present.
10. Grant reviewer, North Carolina Biotechnology Center Multi-disciplinary Grant (MRG) Program, 2001 to 2003.
11. Grant reviewer, National Science Foundation, Bioengineering and Environmental Systems, ad-hoc member, 2001 to 2002.
12. Grant Reviewer for BioAbility “Strategic Information for the Life Sciences”, 2004.
13. Grant Reviewer for Technology Foundation STW, Netherlands, 2004.
14. Grant Reviewer for NIH NCRR, 2005 to present.
15. Grant Reviewer for the Icelandic Science Foundation, 2005.
16. Grant Reviewer, Ireland Science Foundation, 2006.
17. Grant Reviewer, National Taiwan Science Foundation, 2006.
18. Grant Reviewer, NSF CBET, 2006.
19. Grant Reviewer, Austrian Science Fund, Austrian Competence Center for Excellent Technologies (COMET), 2006.
20. Grant Reviewer, Department of Veterans Affairs, Pre-Doctoral Student Proposals, 2007.
21. Grant Reviewer, NSCERC Site Visit, E’cole Polytechnic, Montreal, Canada, 2007.
22. Grant Reviewer, Texas Higher Education Coordinating Board, Texas Advanced Research Program, Houston, TX, 2007.
23. Grant Reviewer, Pennsylvania Nanotechnology Initiative, 2007.
24. Grant Reviewer, NSERC, Extranet, Canada, 2008.
25. Grant Reviewer, Ministry of Education, Academic Research Fund, University of Singapore, 2008.
26. Grant Reviewer, Austrian Science Fund, 2008.
27. Grant Reviewer, Career Panel, NSF BMAT, 2008.
28. Grant Reviewer, EMFRI, NSF ENG, 2008, 2009.
29. Grant Reviewer, ERA-Net EuroNanoMed, ITALY, 2009.
30. Grant Reviewer, NIH Challenge Grants, 3 different institutes in NIH, 2009.
31. Study Section Chair, Nanoparticle Toxicity, NIH, 2009.
32. Grant Reviewer, NIDDK, NIH, 2010.
33. Grant Reviewer, NCI, NIH, 2010.
34. Grant Reviewer, Nano-manufacturing, NSF, 2009.
35. Grant Reviewer, NIH NCI SBIR, 2010 to present.
36. Grant Reviewer, NSF ERC, 2011.
37. Grant Reviewer, NIH NCI, 2012.

More available upon request.

PUBLICATIONS: WEBSTER T.J. H-INDEX: 67 (Google Scholar)

PUBLICATIONS – BOOKS

1. T.J. Webster (editor), “Nanosensors,” Springer, 2010.
2. T.J. Webster (editor), “Safety of Nanoparticles,” Springer, 2008.
3. T.J. Webster (editor), “Nanotechnology for the Regeneration of Hard and Soft Tissue”, World Publishing, 2007.
4. T.J. Webster and H.S. Nalwa (editors), “Cancer Nanotechnology,” American Scientific Publishers, 2007.
5. T.J. Webster (editor), “MRS Conference Proceeding: Symposium DD”, Materials Research Society, Warrendale, PA, 2008.
6. T.J. Webster (editor), “MRS Conference Proceeding: Symposium YY”, Materials Research Society, Warrendale, PA, 2010.
7. T.J. Webster and M. Lysaght, “Biomaterials for Artificial Organs,” Woodhead Publishing, 2010.
8. H. Liu, A. Wang, and T.J. Webster, “Compatibility of Nanomaterials - The Role of Their Size and Surfaces,” CRC Press, in press, 2012.
9. T.J. Webster, “Nanostructured Medical Devices,” Woodhead Publishing, in press, 2012.

PUBLICATIONS - BOOK CHAPTERS

1. T. J. Webster, “Nanophase ceramics: The future orthopedic and dental implant material,” in Advances in Chemical Engineering Vol. 27 (J. Y. Ying, ed.), Academic Press, NY, pgs. 125-166, 2001.
2. T. J. Webster, “Proteins: structure and interactions patterns to solid surfaces,” in Dekker Encyclopedia of Nanoscience and Nanotechnology (J.A. Schwarz, C. Contescu, and K. Putyera, eds.), Marcel Dekker, Inc., pgs. 3079-3095, 2004.
3. J. Ejiogor and T. J. Webster, “Biomedical implants from nanostructured materials,” in Dekker Encyclopedia of Nanoscience and Nanotechnology (J.A. Schwarz, C. Contescu, and K. Putyera, ed.), Marcel Dekker, Inc., pgs. 263-275, 2004.
4. T. J. Webster, “Novel nanostructured surface roughness for the control of protein and cell functions,” in Handbook of Nanostructured Biomaterials and Their Application in Nanobiotechnology (H.S. Nalwa, ed.), American Scientific Publishers, pgs. 167-203, 2005.
5. T.J. Webster, “Orthopedic implants,” Exploring Nanotechnology, Nanopolis, Inc. (on-line at www.nanopolis.net/order), 2005.
6. J. A. McCann, T. J. Webster, and K. M. Haberstroh, “Responses of vascular cells to turbulent and laminar flow conditions,” in Biomolecular Sensing, Processing and Analysis (S. Wereley and R. Bashir, eds. M. Ferrari, ed. in chief), Springer, New York, NY, pgs. 371-392, 2006.

7. M. Sato, T.J. Webster, “Orthopedic tissue engineering using nanomaterials,” in Nanotechnologies for the Lifesciences: Tissue, Cell and Organ Engineering (C. Kumar, ed.), Wiley-VCH Verlag, Weinheim, Germany, pgs. 257-279, 2006.
8. J. B. Thomas, N.A. Peppas, M. Sato, and T.J. Webster, “Nanotechnology and biomaterials,” in Nanomaterials Handbook (Y. Gogotsi, ed.), CRC Taylor and Francis Press, Boca Raton, FL, pgs. 605-636, 2006.
9. H. Liu, G. Park, T.J. Webster, “Biocomposites,” in Encyclopedia of Biomaterials and Biomedical Engineering (G. Wnek, ed.), Marcel-Dekker, pgs. 1-17, 2006.
10. T.J. Webster, “Nanotechnology for tissue engineering,” Henry Stewart Talks (audio textbook), Henry Stewart Talks Publishing, 2006.
11. T. J. Webster and E. Ahn, “Nanostructured biomaterials for tissue engineering bone,” in Advances in Biochemical Engineering/Biotechnology: Tissue Engineering II Basics and Tissue Engineering and Tissue Applications (K. Lee and D.L. Kaplan, eds.), Springer-Verlag, Berlin, Germany, pgs. 275-308, 2007.
12. A. Chun, J. Moralez, T.J. Webster, and H. Fenniri, “Self-assembled organic nanotubes: Novel bionanomaterials for Orthopedic and Tissue Engineering,” in Nanotechnology in Biology and Medicine: Methods, Devices, and Applications (T. Vo-Dinh, ed.), CRC Press, 2007.
13. J. McKenzie, T.J. Webster, “Protein interactions with surfaces,” in Biomaterials: Processing, Characterization, and Applications (R. Narayan, ed.), Cambridge Press, 2008.
14. D. Miller, T.J. Webster, “Soft biomaterials,” in Nanotechnology for Soft Tissues (N. H. Nalwa, ed.), American Scientific Publishers, 2008.
15. G. Park, T.J. Webster, “Porous biomaterials,” in Principles of Biomedical Engineering (D. Webster, ed.), Wiley, 2007.
16. G. Park, T.J. Webster, “Cartilage scaffolds,” in Encyclopedia of Biomedical Engineering, (M. Akay, ed.), Wiley, 2007.
17. G. Balasundrum, T.J. Webster, “Nanostructured materials in drug delivery,” in Nanotechnology in Therapeutics: Current Technology and Applications (J. Z. Hilt, J. B. Thomas, and N. Peppas, eds.), Horizon Press, 2007.
18. D. Miller*, T.J. Webster, “Anticancer orthopedic implants,” in Cancer Nanotechnology (H. Nalwa and T. J. Webster, eds.), American Scientific, 2007.
19. T.J. Webster, A. Thapa*, M. Pattison*, and Karen M. Haberstroh, “Nanostructured polymers for treating bladder cancer,” in Cancer Nanotechnology (H. Nalwa and T. J. Webster, eds.), American Scientific, 2007.
20. C. Yao* and T.J. Webster, “Anodization: A promising nano-modification technique of titanium-based implants for orthopedic applications,” in Surface Engineering Surgical Tools and Devices (M. Jackson, ed.), Springer, 2007.
21. L. Zhang*, S. Sirivisoot*, G. Balasundaram*, and T. J. Webster, “Nanoengineering for bone tissue engineering,” in Micro and Nano Engineering of the Cell Environment (A. Khademhosseini, J. Borenstein, S. Takayama, M. Toner, eds.), Artech House Publishing Inc., 431-460, 2008.
22. M. Sato* and T.J. Webster, “Nanotechnology and biomaterials,” in Essential in Nanoscience and Nanotechnology (Y. Gogotsi, ed.), CRC Taylor and Francis Press, Boca Raton, FL, 2007.

23. G. Balasundaram* and T. J. Webster, “Nanomaterials for better orthopedics,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
24. D. Khang* and T. J. Webster, “Bio-inspired carbon nano-structures: orthopedic applications,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
25. C. Yao* and T. J. Webster, “Anodization: A promising nano-modification technique of titanium-based implants for orthopedic applications,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
26. H. Liu* and T. J. Webster, “Bioinspired nanocomposites in orthopedics,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
27. P. Liu* and T. J. Webster, “Applications of nanotechnology/nanomaterials in the nervous system,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
28. S. Choudhary*, T. J. Webster and K. Haberstroh, “Vascular stent nanoparticle wear debris,” in Nanotechnology for the Regeneration of Hard and Soft Tissues (T. J. Webster, ed.), World Scientific, 2007.
29. L. Zhang*, S. Sirivisoot*, G. Balasundaram*, and T. J. Webster, “Nanomaterials for improved orthopedic and bone tissue engineering applications,” in Advanced Biomaterials: Fundamental, Processing and Applications (B. Basu, D. Katti, A. Kumar, eds.), John Wiley and Sons, 2007.
30. B. Ercan*, L. Zhang*, T. J. Webster, “Nano bioengineering,” in Nanotechnology and Tissue Engineering: The Scaffold (C. Laurecin and N. Laksmir, eds.), 2008.
31. N. Tran* and T. Webster, “Nanotechnology for Treating Osteoporosis and Bone Cancer,” in Nanostructured Materials for Biomedical Applications (M.C. Tan, G.M. Chow, L. Ren, eds.), Transworld Research Network, 2008.
32. L. Yang*, S. Sirivisoot*, and T. J. Webster, “Nanotechnology for improving orthopedic implants,” in Encyclopedia of Nanoscience and Nanotechnology (H. Nalwa, ed.), American Scientific, 2008.
33. Y. Lei*, S. Sirivisoot*, and T. J. Webster, “Understanding and controlling protein, cell, and tissue responses,” in Biological Interactions on Materials Surfaces (D. Puleo and R. Bizios, eds.), Springer, 2009.
34. Y. Chen*, R. Pareta*, T. J. Webster, “Nanostructured materials for regenerative medicine”, in CCR Press, 2009.
35. S. Sirivisoot*, Y. Chen*, and T. J. Webster, “Nanotechnology for Treating Osteoporosis and bone cancer,” M.C. Tan (ed.), in Nanotechnology, Transworld Research Network, in press, 2011.
36. L. Zhang*, B. Ercan* and T. J. Webster, “Carbon nanotubes and nanofibers for tissue engineering applications,” in: Carbon, C. Liu (Ed.), Research Signpost, in press, 2011.
37. T. J. Webster and D. Lockwood, “Dictionary of Nanoscience and Nanotechnology,” Springer, in press, 2011.
38. G. Park*, G. Balasundaram*, and T. J. Webster, in “Nanotechnology for treating osteoporosis and bone cancer,” in Nanostructured Materials for Biomedical

- Applications, M.C. Tan (Ed.), Tramsnsworld Research Network, Kerala, India, 2009.
39. Y. Chen* and T.J. Webster, “Nanomaterials” in T.J. Webster and M. Lysaght, “Biomaterials for Artificial Organs,” Woodhead Publishing, in press, 2011.
 40. D. Gorth* and T.J. Webster, “Tissue Engineering Matrices,” in T.J. Webster and M. Lysaght, Biomaterials for Artificial Organs, Woodhead Publishing, in press 2011.
 41. D. Gorth* and T.J. Webster, “Nanobiomaterials,” in K. Papat, Nanotechnology in Tissue Engineering and Regenerative Medicine, CRC/Taylor and Francis Press, in press, 2011.
 42. D. Gorth* and T.J. Webster, “Nanomaterials for Implant Applications,” in AZoNano Feature Articles, Nanotechnology Thought Leader Strategies, AZoNano, in press, 2011.
 43. S. Sirinrath* and T.J. Webster, “Orthopedic Sensors Based on Nanotechnology,” in Nanosensors, T.J. Webster (editor), Springer, in press, 2011.
 44. Jennifer Hsu* and T.J. Webster, “Nano Sensors for Cardiac Applications,” in Nanosensors, T.J. Webster (editor), Springer, in press, 2011.
 45. L. Yang* and T.J. Webster, “Carbon Nanotube and Fullerenes Materials,” in Comprehensive Biomaterials, Elsevier, in press, 2011.
 46. L. Yang* and T.J. Webster, “Nano-Biomaterials - State of the Art and Future Trends,” in Advanced Biomaterials, WILEY-VCH, in press, 2011.
 47. L. Yang* and T.J. Webster, “Titanium and Cobalt Chromium Alloys,” in T.J. Webster and M. Lysaght, Biomaterials for Artificial Organs, Woodhead Publishing, in press 2011.
 48. P. Tran* and T.J. Webster, “Nanotechnologies for cancer diagnostics and treatment,” in C.J. Dixon, O.W. Curtines (eds.) Nanotechnology: Nanofabrication, patterning and self-assembly, Nova Science Publisher, in press, 2011.

PUBLICATIONS - REFEREED JOURNAL ARTICLES (*student in my lab)

1. T. J. Webster and L. Hooper, “Supplemental Instruction for introductory chemistry courses: a preliminary investigation,” *Journal of Chemical Education* 75:328-331 (1998).
2. T. J. Webster and K. C. Dee, “Supplemental Instruction integrated into an introductory engineering course,” *Journal of Engineering Education* 87:377-383 (1998).
3. T. J. Webster, R. W. Siegel, and R. Bizios, “Design and evaluation of nanophase alumina for orthopaedic/dental applications,” *Nanostructured Materials* 12:983-986 (1999).
4. T. J. Webster, R. W. Siegel, and R. Bizios, “Osteoblast adhesion on nanophase ceramics,” *Biomaterials* 20:1221-1227 (1999).
5. T. J. Webster, C. Ergun, R. H. Doremus, R.W. Siegel, and R. Bizios, “Specific proteins mediate enhanced osteoblast adhesion on nanophase ceramics,” *Journal of Biomedical Materials Research* 51:475-483 (2000).

6. T. J. Webster, R. W. Siegel, and R. Bizios, "Enhanced functions of osteoblasts on nanophase ceramics," *Biomaterials* 21:1803-1810 (2000).
7. T. J. Webster, R. W. Siegel, and R. Bizios, "Enhanced surface and mechanical properties of nanophase ceramics to achieve orthopaedic/dental implant efficacy," *Key Engineering Materials* 192-195:321-324 (2001).
8. T. J. Webster, L. S. Schadler, R. W. Siegel, and R. Bizios, "Mechanisms of enhanced osteoblast adhesion on nanophase alumina involve vitronectin," *Tissue Engineering* 7: 291-301 (2001).
9. T. J. Webster, C. Ergun, R. H. Doremus, R. W. Siegel, and R. Bizios, "Enhanced functions of osteoclast-like cells on nanophase ceramics," *Biomaterials* 22: 1327-1333 (2001).
10. T. J. Webster, R. W. Siegel, and R. Bizios, "Nanoceramic surface roughness enhances osteoblast and osteoclast functions for improved orthopaedic/dental implant efficacy," *Scripta Materialia* 44: 1639-1642 (2001).
11. T. J. Webster, C. Ergun, R. H. Doremus, and R. Bizios, "Mechanisms of enhanced osteoblast adhesion on hydroxyapatite doped with Yttrium," *Journal of Biomedical Materials Research* 59: 312-317 (2002).
12. C. Ergun, T. J. Webster, R. Bizios, and R. H. Doremus, "Hydroxyapatite with substituted Mg, Zn, Cd, and Y: structure and microstructure," *Journal of Biomedical Materials Research* 59: 305-311 (2002)13. K. L. Elias*, R. L. Price*, and T. J. Webster, "Enhanced functions of osteoblasts on carbon nanofiber compacts," *Biomaterials* 23: 3279-3287 (2002).
14. T. J. Webster and K. M. Haberstroh, "An interactive, video-teleconferenced, graduate course in biomedical engineering," *Journal of Engineering Education* 91(2): 159-166 (2002).
15. L. G. Gutwein* and T. J. Webster, "Osteoblast and chondrocyte proliferation in the presence of alumina and titania nanoparticles," *Journal of Nanoparticle Research* 4:231-238 (2002).
16. S. Kay*, A. Thapa*, K. M. Haberstroh, and T. J. Webster, "Nanostructured polymer:nanophase ceramic composites enhance osteoblast and chondrocyte adhesion," *Tissue Engineering* 8(5): 753-761 (2002).
17. D.C. Miller*, A. Thapa*, K.M. Haberstroh, and T.J. Webster, "Enhanced functions of vascular and bladder cells on poly-lactic-co-glycolic acid polymers with nanostructured surfaces," *IEEE Transactions on NanoBiosciences* 1(2): 61-66 (2002).
18. R. L. Price*, M. C. Waid*, K. M. Haberstroh, and T. J. Webster, "Select bone cell adhesion on formulations containing carbon nanofibers," *Biomaterials* 24(11): 1877-1887 (2003).
19. J.K. Savaiano* and T.J. Webster, "Altered responses of chondrocytes to nanophase PLGA/nanophase titania composites," *Biomaterials* 25:1205-1213 (2003).
20. A. Thapa*, D.C. Miller*, T.J. Webster, K.M. Haberstroh, "Nano-structured polymers enhance bladder smooth muscle cell function," *Biomaterials* 24(17): 2915-2926 (2003).

21. R.L. Price*, K. M. Haberstroh, and T.J. Webster, “Enhanced functions of osteoblasts on nanostructured surfaces of carbon and alumina,” *Medical and Biological Engineering and Computing* 41:372-375 (2003).
22. A. Thapa*, T.J. Webster, K.M. Haberstroh, “Polymers with nano-dimensional surface features enhance bladder smooth muscle cell adhesion,” *Journal of Biomedical Materials Research* 67A:1374-1383 (2003).
23. T. J. Webster , C. Ergun, R. H. Doremus, and W. A. Lanford, “Increased osteoblast adhesion on titanium coated hydroxylapatite that forms CaTiO_3 ,” *Journal of Biomedical Materials Research* 67A:975-980 (2003).
24. R. C. Danczyk*, B. Krieder, A. North, T. J. Webster, H. HogenEsch, A. Rundell, “Comparison of antibody functionality using different immobilization methods,” *Biotechnology and Bioengineering* 84(2): 215-223 (2003).
25. R.L. Price*, L.G. Gutwein*, L. Kaledin, F. Tepper, and T.J. Webster, “Osteoblast function on nanophase alumina materials: Influence of chemistry, phase, and topography,” *Journal of Biomedical Materials Research* 67A:1284-1293 (2003).
26. L. G. Gutwein* and T. J. Webster, “Increased viable osteoblast cell density in the presence of nanophase compared to conventional alumina and titania particles,” *Biomaterials* 25(18): 4175-4183 (2004).
27. T.J. Webster, E. A. Massa-Schlueter*, J.L. Smith*, and E.B. Slamovich, “Osteoblast response to hydroxyapatite doped with divalent and trivalent cations,” *Biomaterials* 25:2111-2121 (2004).
28. J. L. McKenzie*, M. C. Waid*, R. Shi, and T. J. Webster, “Decreased functions of astrocytes on carbon nanofiber materials,” *Biomaterials* 25:1309-1317 (2004).
29. D.C. Miller*, A. Thapa*, K.M. Haberstroh, and T.J. Webster, “Endothelial and vascular smooth muscle cell function on poly (lactic-co-glycolic acid) with nano-structured surfaces,” *Biomaterials* 25:53-61 (2004).
30. D. O. Freytes*, S.F. Badylak, T.J. Webster, L.A. Geddes, A.E. Rundell, “Biaxial strength of multilaminated extracellular matrix scaffolds,” *Biomaterials* 25:2353-2361 (2004).
31. R. Vance*, D. M. Miller*, A. Thapa*, K.M. Haberstroh, and T.J. Webster, “Decreased fibroblast cell density on chemically-degraded poly-lactic-co-glycolic acid polyurethane and polycaprolactone,” *Biomaterials* 25:2095-2103 (2004).
32. R L. Price*, K.S. Ellison*, K. M. Haberstroh, and T.J. Webster, “Nanometer surface roughness increases select osteoblast adhesion on carbon nanofibers,” *Journal of Biomedical Materials Research* 70A:129-138 (2004).
33. J. U. Ejiofor*, M. C. Waid*, J. L. McKenzie*, R. L. Price*, and T. J. Webster, “Nano-biotechnology: carbon nanofibers as improved neural and orthopedic implants,” *Nanotechnology* 15:48-54 (2004).
34. R. L. Price* and T. J. Webster, “Increased osteoblast viability in the presence of smaller nano-dimensioned carbon fibers,” *Nanotechnology* 15(8):892-900 (2004).
35. T.J. Webster and J.U. Ejiofor, “Increased osteoblast adhesion on nanophase metals: Ti, Ti6Al4V, and CoCrMo,” *Biomaterials* 25:4731-4739 (2004).
36. K. Moxon, N. Kalhoran, M. Sambito, J. L. McKenzie*, and T.J. Webster, “Review of surface modification of ceramic based microelectrodes to enhance biocompatibility for a direct brain machine interface,” *IEEE Transactions of Biomedical Engineering* 51(6): 881-889 (2004).

37. A. Chun*, J. G. Morales, H. Fenniri, and T.J. Webster, "Helical rosette nanotubes: a more effective orthopaedic implant material," *Nanotechnology* 15:S234-239 (2004).
38. M. Sato* and T.J. Webster, "Nano-biotechnology for orthopedic implants," *Expert Review of Medical Devices* (invited contribution) 1(1): 105-114 (2004).
39. D. C. Miller*, T.J. Webster, K. M. Haberstroh, "Technological advances in nano-structured biomaterials: the future of synthetic vascular graft design," *Expert Review of Medical Devices* (invited contribution) 1(2):259-268 (2004).
40. T.J. Webster, M.C. Waid*, J.L McKenzie*, R.L. Price*, J. U. Ejiofor, "Nano-biotechnology: carbon nanofibres as improved neural and orthopaedic implants," *Nanotechnology* 15(1):48-54 (2004).
41. J. A. McCann*, S.A. Peterson, M. Plesniak, T. J. Webster, and K. M. Haberstroh, "Variations in flow characteristics yield altered gene expression across a parallel plate flow chamber," *Annals of Biomedical Engineering* 33(3): 328-336 (2005).
42. D.O. Freytes*, A.E. Rundell, J. Vande Geest, D.A. Vorp, T.J. Webster, S.F. Badylak, "Analytically derived material properties of multilaminated extracellular matrix devices using the ball-burst test," *Biomaterials* 26: 5518-5531 (2005).
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89. K.M. Haberstroh (speaker), A. Thapa*, D.C. Miller*, T.J. Webster, “Bio-inspired, nano-structured polymers for use in soft tissue replacement applications,” presented at the ASME Summer Bioengineering Meeting, Key Biscayne, FL, 2003.
90. T.J. Webster (speaker), K.M. Haberstroh, and S.R. Dunlop, “Development of asynchronous learning modules in biomedical engineering,” presented at the 2003 IHETS/IPSE All Partners Conference, Ball State University Alumni Center, IN, 2003.
91. M. C. Waid*, J. L. McKenzie* (speaker), R. L. Price*, and T. J. Webster, “Cytocompatibility and material properties of poly-carbonate urethane/carbon nanofiber composites for bone and neural applications,” presented at the Materials Research Society Annual Spring Meeting, San Francisco, CA, 2003.
92. K.S. Ellison*, R. L. Price*, D. C. Miller*, and T. J. Webster (speaker), “Select, enhanced osteoblast adhesion on nanostructured poly-lactic-co-glycolic surfaces,”

- presented at the Materials Research Society Annual Spring Meeting, San Francisco, CA, 2003.
93. J. A. McCann* (speaker), S. D. Peterson, T. J. Webster, M. W. Plesniak, and K. M. Haberstroh, "Slight geometrical variations across a parallel plate flow chamber yields non-uniform gene expression," presented at the Sigma Xi Graduate Student Poster Competition, Purdue University, 2003.
 94. J. McKenzie* (speaker), R. Shi, and T.J. Webster, "Cytocompatibility of astrocytes on carbon nanofiber materials," presented at the Sigma Xi poster Competition, Purdue University, 2003.
 95. R.L. Price* (speaker), M.C. Waid, K.M. Haberstroh, and T.J. Webster, "Carbon nanofiber/polymer composite materials as bone implants," presented at the Sigma Xi Poster Competition, Purdue University, 2003.
 96. G. E. Park* (speaker), B.C. Ward, K. Park, T. J. Webster, "Biomimetic PLGA surfaces as improved cartilage prostheses," presented at the Sigma Xi Poster Competition, Purdue University, 2003.
 97. R.L. Price* (speaker), K. Ellison, and T.J. Webster, "Increased osteoblast function on carbon nanofibers due to novel nanometer surface roughness," presented at the Tenth International Conference on Composites Engineering, New Orleans, LA, 2003.
 98. D.C. Miller*, A. Thapa*, S. Kay*, K.M. Haberstroh, and T.J. Webster (speaker), "Enhanced cell functions on nanostructured polymers," presented at the Tenth International Conference on Composites Engineering, New Orleans, LA, 2003.
 99. K.S. Ellison* (speaker), R. L. Price*, D. C. Miller*, and T. J. Webster, "Nanometer surface roughness increases select osteoblast adhesion on carbon nanofiber compacts," presented at the Society for Biomaterials Meeting, Reno, NV, 2003.
 100. J.A. McCann* (speaker), S.D. Peterson, T.J. Webster, M.W. Plesniak, and K.M. Haberstroh, "Inadvertent variations in fluid flow across a parallel plate flow chamber results in non-uniform gene expression," presented at the ASME Summer Bioengineering Meeting, Key Biscayne, FL, 2003.
 101. J.A. McCann* (speaker), T.J. Webster, and K.M. Haberstroh, "Vascular endothelial cells release soluble mediators in response to fluid flow that affect smooth muscle cell growth and mRNA expression," presented at the ASME Summer Bioengineering Meeting, Key Biscayne, FL, 2003.
 102. D.C. Miller* (speaker), K.M. Haberstroh, T.J. Webster, "Design, synthesis, and evaluation of polymeric biomaterials with nano-structured surface features for vascular applications," presented at the Sigma Xi poster Competition, Purdue University, 2003.
 103. A. Rundell (speaker), T.J. Webster (speaker), H. HogenEsch, "Optimizing the immuno-surface characteristics for biosensors and filters through modeling and experiments," presented at the Joint DARPA Bioflips Simbiosys PI Meeting, Santa Barbara, CA, 2003.
 104. T.J. Webster (speaker), "Bio-nanotechnology: Implications for Designing More Effective Tissue Engineering Materials," presented at the Gordon Conference on Biomaterials: Biocompatibility/Tissue Engineering, NH, 2003.

105. J.L. McKenzie* (speaker), R.L., Price*, T.J. Webster, “Bone and neural cell interactions with carbon nanofibers/nanotubes: Implications for better implant designs,” presented at the American Society for Microbiology, New York, NY, 2003.
106. A. L. Chun* (speaker), H. Fenniri, and T.J. Webster, “Increased osteoblast adhesion on titanium coated with helical rosette nanotubes,” presented at the Annual AIChE Conference, San Francisco, CA, 2003.
107. A. L. Chun* (speaker), H. Fenniri, and T.J. Webster, “Helical rosette nanotubes as more effective orthopedic implants,” presented at the Trends in Nanotechnology Conference, Salamanca, Spain, 2003.
108. J. A. McCann* (speaker), T.J. Webster, and K.M. Haberstroh, “Vascular endothelial and smooth muscle cell interactions affect vessel homeostasis,” presented at the BMES conference, Nashville, TN, 2003.
109. J. U. Ejiofor* and T. J. Webster (speaker), “Nano powder metallurgy titanium enhances bone cell functions” presented at the Nano and Powder Metallurgy Conference, Las Vegas, NV, 2003.
110. J. L. Smith* (speaker) and T. J. Webster, “Influence of Ph on hydroxyapatite solubility and bone cell adhesion,” presented at the BMES conference, Nashville, TN, 2003.
111. P. V. Tuttle IV* (speaker), R.C. Danczyk*, T. J. Webster, A. E. Rundell, “Development of ceramic nano-structured surface roughness for antibody-based biosensors,” presented at the BMES conference, Nashville, TN, 2003.
112. Y. Zheng, P. V. Tuttle IV*, R. C. Danczyk*, H. HogenEsch, T. J. Webster, A. E. Rundell (speaker), “A kinetic analysis of the non-specific interactions at biosensor immuno-surfaces,” presented at the BMES conference, Nashville, TN, 2003.
113. G. E. Park* (speaker), M. A. Pattison*, K. Park, and T. J. Webster, “Enhanced articular chondrocyte numbers on NaOH-treated PLGA,” presented at the BMES conference, Nashville, TN, 2003.
114. J. U. Ejiofor*, C. Corylene, and T. J. Webster (speaker), “Fine-particle titanium compacts enhance osteoblast and fibroblast cell functions,” presented at the BMES conference, Nashville, TN, 2003.
115. R.L. Price* (speaker), K.M. Haberstroh, and T.J. Webster, “The effects of nanometer fiber dimensions on osteoblast and fibroblast adhesion and viability,” presented at the BMES conference, Nashville, TN, 2003.
116. J.L. McKenzie* (speaker), M. Sambito, N. Kalkorhan, and T.J. Webster, “Select increased neuronal cell function on nanoporous silicon,” presented at the Materials Research Society Fall Meeting, Boston, MA 2003.
117. J.L. McKenzie* (speaker), M. Sambito, N. Kalkorhan, and T.J. Webster, “Aligned axonal outgrowth for neurons cultured on nanophase carbon deposited on porous silicon templates,” presented at the Materials Research Society Fall Meeting, Boston, MA, 2003.
118. T.J. Webster (speaker) and J. U. Ejiofor*, “Nanostructured titanium and Ti6Al4V surfaces increase bone cell functions,” presented at the Materials Research Society Fall Meeting, Boston, MA, 2003.
119. A. Rundell (speaker), T.J. Webster (speaker), H. HogenEsch, “Optimizing the immuno-surface characteristics for biosensors and filters through modeling and

- experiments,” presented at the Joint DARPA Bioflips Symbiosys PI Meeting, Monterey, CA, 2003.
120. T.A. Smith* (speaker) and T. J. Webster, “Increased osteoblast functions on three-dimensional PLGA scaffolds containing nanophase titania,” presented at the BMES conference, Nashville, TN, 2003.
 121. E. Hillenmeyer* (speaker), R.L. Price*, and T. J. Webster, “Osteoblast function depends on nanofiber alumina grain size,” presented at the BMES conference, Nashville, TN, 2003.
 122. S. Wurster* (speaker), M. Pattison*, K.M. Haberstroh, and T. J. Webster, “Nano-structured three-dimensional PLGA increases bladder smooth muscle function,” presented at the BMES conference, Nashville, TN, 2003.
 123. M. Pattison*(speaker), K. M. Haberstroh, and T.J. Webster, “An investigation of 3D, nano-structured polymers as bladder tissue constructs,” presented at the BMES conference, Nashville, TN, 2003.
 124. D.C. Miller* (speaker), K.M. Haberstroh, T.J. Webster, “Mechanism of enhanced vascular cell function on nano-structured poly(lactic-co-glycolic acid),” presented at the BMES conference, Nashville, TN, 2003.
 125. D.C. Miller* (speaker), K.M. Haberstroh, and T.J. Webster, “Design of polymeric vascular biomaterials with nano-structured surface features,” presented at the Gill Heart Research Day, Lexington, KY, 2003.
 126. J.A. McCann* (speaker), T.J. Webster, and K.M. Haberstroh, “Coordinated vascular endothelial and smooth muscle cell interactions in response to fluid shear stress affect vessel homeostasis,” presented at the Gill Heart Research Day, Lexington, KY, 2003.
 127. K.M. Haberstroh (speaker), T.J. Webster (speaker), and C. Scharff, “Involving females in the exciting and growing field of science,” presented at the Kappa Delta Pi 44th Biennial Convocation, St. Louis, MO, 2003.
 128. R.L. Price* (speaker), K.M. Haberstroh, and T.J. Webster, “Mechanisms of enhanced osteoblast adhesion on nanofiber materials,” presented at the Society for Biomaterials World Congress, Sydney, Australia, 2004.
 129. A. L. Chun* (speaker), H. Fenniri, and T.J. Webster, “Helical rosette nanotubes as orthopedic tissue engineering devices,” presented at the Society for Biomaterials World Congress, Sydney, Australia, 2004.
 130. J.L. McKenzie* (speaker), R. Shi, and T.J. Webster, “Increased neurite extension for neurons cultured on carbon nanofiber compacts,” presented at the Society for Biomaterials World Congress, Sydney, Australia, 2004.
 131. T.A. Smith* and T.J. Webster (speaker), “Bio-nanotechnology: Increased functions of osteoblasts on polymer composites containing nanophase ceramics,” presented at the Society for Biomaterials World Congress, Sydney, Australia, 2004.
 132. D.C. Miller* (speaker), K.M. Haberstroh, and T.J. Webster, “Mechanisms controlling increased vascular cell adhesion to nano-structured polymer films,” presented at the Society for Biomaterials World Congress, Sydney, Australia, 2004.

133. G.E. Park* (speaker), M.A. Pattison*, K. Park, and T.J. Webster, “Enhance articular chondrocyte function on NaOH-treated PLGA,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
134. J.A. McCann* (speaker), T.J. Webster, and K.M. Haberstroh, “Vessel homeostasis is controlled by coordinated vascular endothelial and smooth muscle cell interactions in response to fluid shear stress,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
135. A.L. Chun* (speaker), H Fenniri, and T.J. Webster, “Helical rosette nanotubes: A potentially more effective orthopedic tissue engineering material,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
136. M. Sato* (speaker), E.B. Slamovich, and T.J. Webster, “Preparation and characterization of hydroxyapatite/titania composite coatings in poly(lactide-co-glycolide) for orthopedic applications,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
137. C. Yao* (speaker), E.B. Slamovich, and T.J. Webster, “Improved cell adhesion on nanophase titanium and Ti6Al4V,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
138. H. Liu* (speaker), E.B. Slamovich, and T.J. Webster, “Improved dispersion of nanophase titani in polymer composites enhance osteoblast adhesion,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
139. Z. Zhong*, M. K. Banks, and T.J. Webster (speaker), “Increased bacteria attachment on nanophase materials,” presented at the American Chemical Society, Philadelphia, PA, 2004.
140. P. V. Tuttle IV* (speaker), R.C. Danczyk, H. HogenEsch, T.J. Webster, and A.E. Rundell, “Development of control nano-structured surface roughness for antibody-based biosensors,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
141. D.C. Miller* (speaker), K.M. Haberstroh, and T.J. Webster, “Fibronectin and vitronectin are critical for vascular cell recognition of nano-structured poly(lactic-co-glycolic acid) films,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
142. D. Khang* (speaker), J. L. McKenzie*, T. J. Webster, “Electrical alignment of carbon nanofibers in a polymer matrix for neural biomaterial applications,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
143. R. Y. Park* (speaker), Z. Tong* (speaker), M. K. Banks, and T. J. Webster, “Bacterial adhesion on nanophase materials,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
144. R.A. Price* (speaker), K.M. Haberstroh, and T.J. Webster, “The effects of nanometer fiber dimensions on cell adhesion and viability,” presented at the Sigma Xi Research Conference, Purdue University, 2004.
145. P. Venu* (speaker), J.L. McKenzie*, and T.J. Webster, “Effect of coating techniques on the creation of calcified zone of implant-tendon entheses,” presented at the 30th Annual Northeastern Bioengineering Conference, Springfield, MA, 2004.
146. J.L. McKenzie (speaker)*, R. Shi, and T.J. Webster, “Analysis of carbon nanofibers and porous silicon for neural applications,” presented at the

- International Conference on Biomedical Engineering (BioMED 2004), Austria, 2004.
147. G. Park (speaker)*, K. Park*, and T.J. Webster, “Increased articular chondrocyte functions on NaOH-treated PLGA,” presented at the 30th Annual Northeastern Bioengineering Conference, Springfield, MA, 2004.
 148. D. C. Miller (speaker) *, K.M. Haberstroh, and T.J. Webster, “Increased proteins interactions with nano-structured PLGA increases vascular cell function,” presented at the 30th Annual Northeastern Bioengineering Conference, Springfield, MA, 2004.
 149. J.A. McCann (speaker)*, T.J. Webster, and K.M. Haberstroh, “Vascular cell responses to physiologically-relevant mechanical and biochemical stimuli,” presented at the 5th Annual Conference on Arteriosclerosis, Thrombosis, and Vascular Biology, San Francisco, CA, 2004.
 150. K.M. Haberstroh (speaker) and T.J. Webster, “A cumulative report on the biomedical engineering research experiences for undergraduates program at Purdue University,” presented at the 30th Annual Northeastern Bioengineering Conference, Springfield, MA, 2004.
 151. D. Khang* (speaker), J. L. McKenzie*, T. J. Webster, “Carbon nanofiber:polycarbonate urethane composites as a neural biomaterial,” presented at the 30th Annual Northeastern Bioengineering Conference, Springfield, MA, 2004.
 152. J.A. McCann* (speaker), T.J. Webster, K.M. Haberstroh, “Soluble mediators released by flow- and pressure-exposed vascular endothelial cells induce functional changes in endothelial and smooth muscle cells,” presented at the Annual AIChE meeting, Austin, TX, 2004.
 153. D. Khang* (speaker) and T.J. Webster, “Aligned carbon nanotube-polymer composites for orthopedic implants,” presented at the Annual AIChE meeting, Austin, TX, 2004.
 154. A.L. Chun* (speaker), H. Fenniri, T.J. Webster, “Helical rosette nanotubes: applications in orthopedics,” presented at the Indiana Health Industry Forum, Indianapolis, IN, 2004.
 155. A. L. Chun* (speaker), H. Fenniri, T.J. Webster, “Helical rosette nanotubes: a protein-like coating material for orthopedics,” presented at the Society for Biomaterials, Biomaterials in Regenerative Medicine: The Advent of Combination Products, Philadelphia, PA, 2004.
 156. D. Khang* (speaker) and T.J. Webster, “Electrical interaction of osteoblasts with aligned carbon nanotubes/nanofibers in polymer composites,” presented at the Society for Biomaterials, Biomaterials in Regenerative Medicine: The Advent of Combination Products, Philadelphia, PA, 2004.
 157. A. L. Chun* (speaker), H. Fenniri, T.J. Webster, “Self-assembled nanostructures for orthopedic application: helical rosette nanotubes,” presented at the Annual AIChE meeting, Austin, TX, 2004.
 158. H. Liu* (speaker), E. B. Slamovich, T.J. Webster, “Increased osteoblast adhesion on polymers with improved dispersion of nanophase titania,” presented at the Annual AIChE meeting, Austin, TX, 2004.

159. M. Park* (speaker), Z. Zong*, M.K. Banks, T.J. Webster, “More efficient capture of bacteria on nanophase materials,” presented at the Annual AIChE meeting, Austin, TX, 2004.
160. B.C. Ward* (speaker) and T.J. Webster, “Enhanced mineral deposition by osteoblasts cultured on nanophase metals,” presented at the Annual Fall MRS meeting, Boston, MA, 2004.
161. M. Sato* (speaker), M. Sambito, E. Slamovich, N. Kalkhoran, T.J. Webster, “Novel nanophase hydroxyapatite coatings for orthopedic applications,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
162. J. A. McCann* (speaker), T.J. Webster, and K. Haberstroh, “Functional changes in vascular cells induced by biochemical and hemodynamic factors,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
163. T.J. Webster (speaker) and K. M. Haberstroh, “Increasing interest in BME through a research experiences for undergraduates program,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
164. J. McKenzie* (speaker), G. Graber, D. Khang*, R. Shi, and T.J. Webster, “Aligned carbon nanofibers in polymer matrices for neural applications,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
165. V. Perla* (speaker) and T.J. Webster, “Enhanced osteoblast adhesion on nanophase selenium,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
166. H. Liu* (speaker), E. B. Slamovich, T.J. Webster, “Improved osteoblast function on nanophase titania in PLGA composites,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
167. C. Yao* (speaker), E.B. Slamovich, T.J. Webster, “Improved osteoblast adhesion on anodized nanostructured titanium,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
168. P. Tuttle* (speaker), H. HogenEsch, A. E. Rundell, T.J. Webster, “Cell mimicked nano-structured surface roughness membranes for antibody-based biosensors,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
169. V. Perla (speaker), M. Sato*, J.L. McKenzie*, and T.J. Webster, “Nano-hydroxyapatite dispersions for entheses applications,” presented at the Society for Biomaterials, Biomaterials in Regenerative Medicine: The Advent of Combination Products, Philadelphia, PA, 2004.
170. B.C. Ward * (speaker) and T.J. Webster, “Enhanced osteoblast metabolic activities on nanometals,” presented at the Society for Biomaterials, Biomaterials in Regenerative Medicine: The Advent of Combination Products, Philadelphia, PA, 2004.
171. M. Sato* (speaker), E.B. Slamovich, and T.J. Webster, “Preparation and characterization of hydroxyapatite/titania composite coatings in poly(lactide-co-glycolide) for orthopedic applications,” presented at the American Ceramic Society, Indianapolis, IN, 2004.
172. C. Yao* (speaker), E.B. Slamovich, and T.J. Webster, “Improved cell adhesion on nanophase titanium and Ti6Al4V,” presented at the American Ceramic Society, Indianapolis, IN, 2004.

173. H. Liu* (speaker), E.B. Slamovich, and T.J. Webster, “Improved dispersion of nanophase titania in polymer composites enhance osteoblast adhesion,” presented at the American Ceramic Society, Indianapolis, IN, 2004.
174. E. Pail* (speaker), D.C. Miller, M. Sato, and T.J. Webster, “Properties that mediate osteoblast adhesion on nanophase titania,” presented at the Annual BMES 2004 Meeting, Philadelphia, PA, 2004.
175. M. Park* (speaker), Z. Zong*, M.K. Banks, T.J. Webster, “More efficient capture of bacteria on nanophase titania,” presented at the Annual MRS Fall meeting, Boston, MA 2004.
176. C. Ghattas, J. Liu* (speaker), M. K. Banks, and T.J. Webster, “The effect of nanophase materials on bacterial adhesion,” presented at the Marc Aim Poster Session, Purdue University, 2004.
177. J. Liu* (speaker), M. K. Banks, and T.J. Webster, “Bacterial adhesion on nanophase surfaces,” presented at the NASA NSCORT Annual Poster Session, Purdue University, 2004.
178. B.C. Ward* (speaker) and T.J. Webster, “Using metal nano topography to enhance calcium and phosphorus deposition on orthopedic implants,” presented at the 2005 Summer Bioengineering Conference, Vail, Colorado, 2005.
179. S. Choundary* (speaker), K. Haberstroh, T.J. Webster, “Nanometals for use as vascular stents,” presented at the 2005 Summer Bioengineering Conference, Vail, Colorado, 2005.
180. H. Liu* (speaker), E. B. Slamovich, T. J. Webster, “Well dispersed nanophase titania in poly-lactic-co-glycolic acid (PGA) scaffolds for bone tissue engineering applications,” presented at the MRS Spring Meeting, San Francisco, CA 2005.
181. P. Lee, D. Khang* (speaker), T.J. Webster, “Cytocompatibility of primary neurons on aligned carbon nanofiber/nanotube patterns,” presented at Carbon 2005, Gyeongju, Korea, 2005.
182. C. Yao (speaker) *, E.B. Slamovich, T.J. Webster, “Anodized Ti for orthopedic applications,” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
183. H. Liu (speaker) *, E.B. Slamovich, T.J. Webster, “Nano ceramics/polymer bone tissue engineering scaffolds” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
184. C. Yao (speaker)*, E.B. Slamovich, T.J. Webster, “Anodized Ti for orthopedic applications,” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
185. D.C. Miller (speaker) *, K.M. Haberstroh, T.J. Webster, “Optimizing interactions of fibronectin on nano-structured polymers films for vascular applications,” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
186. M. Park (speaker) *, B. Applegate, K. M. Banks, T. J. Webster, “Nanostructured ceramics for microbial applications,” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
187. Khang (speaker), M. Lee, S. Namkung, S. Hong, T. J. Webster, “Aligned carbon nanofiber/nanotube patterns for orthopaedic applications,” presented at the Sigma

- Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
188. L. Smith (speaker)*, K. M. Haberstroh, and T. J. Webster, “Fabrication of porous nanoscale polymeric scaffolds for entheses tissue engineering,” presented at the Sigma Xi Research Conference, Purdue University, West Lafayette, IN, 2005.
 189. K. M. Haberstroh and T. J. Webster (speaker), “A research experience for undergraduates in Biomedical Engineering at Purdue University,” presented at the Northeastern Bioengineering Conference, Stevens Institute of Technology, Hoboken, NJ, 2005.
 190. T.J. Webster, “Nanotechnology for the creation of better tissue engineering materials,” presented at the MTEC 2005, Cleveland, OH, 2005.
 191. A.L. Chun (speaker)*, T.J. Webster, J. Haber, H. Fenniri, “Nanostructured biomaterials in orthopaedic tissue engineering: An *in vitro* selection of materials & basic mechanistic studies,” presented at the 88th Canadian Chemistry Conference & Exhibition, Alberta, Canada, 2005.
 192. V. Perla (speaker) * and T.J. Webster, “Growth potential of human mesenchymal stem cells and their differentiated cell lineages on engineered porcine small intestine sub-mucosa with nano-hydroxyapatite dispersion for entheses regeneration,” presented at the International Society for Stem cell Research 3rd Annual Meeting, San Francisco, CA, 2005.
 193. D. Khang* and T.J. Webster (speaker), “Directed osteoblast adhesion along carbon nanotube.nanofiber patterns in polymers,” presented at Carbon 2005, Gyeongju, Korea, 2005.
 194. G. E. Park (speaker)*, T.J. Webster, “Nanometer surface roughness enhances chondrocyte functions,” presented at Carbon 2005, Gyeongju, Korea, 2005.
 195. G. Balasundrum (speaker)* and T.J. Webster, “Nanoparticles for the treatment of osteoporosis,” presented at the MTEC 2005, Cleveland, OH, 2005.
 196. G.E. Park (speaker)* and T.J. Webster, “NaOH treated PLGA for cartilage tissue engineering,” presented at the MTEC 2005, Cleveland, OH, 2005.
 197. T.J. Webster, “Nanotechnology for the creation of better tissue engineering materials,” presented at the 1st Annual Society for Nanomedicine Meeting, Baltimore, MD, 2005.
 198. G. Balasundrum (speaker)* and T. J. Webster, “Increased bone growth on calcium-phosphate based nanoparticles,” presented at the Northeastern Bioengineering Conference, Stevens Institute of Technology, Hoboken, NJ, 2005.
 199. J. McCann (speaker) *, T. J. Webster, and K.M. Haberstroh, “Altered endothelial cell response to fluid flow,” presented at the Northeastern Bioengineering Conference, Stevens Institute of Technology, Hoboken, NJ, 2005.
 200. D. Khang (speaker) * and T.J. Webster, “Aligned osteoblasts with carbon nanofibers in a polymer matrix,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
 201. G. Balasundrum (speaker)* and T. J. Webster, “Osteoblast response to ceramic nanoparticles,” presented at the MRS Spring Meeting, San Francisco, CA, 2005.
 202. J. McKenzie(speaker)* and T. J. Webster, “Increased neural cell response on aligned carbon nanofibers,” presented at the MRS Spring Meeting, San Francisco, CA, 2005.

203. J. McKenzie(speaker)*, R. Shi, and T.J. Webster, “Aligned carbon nanofiber materials direct orientation of neurites from neurons,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
204. K.M. Haberstroh (speaker), M. Pattison*, and T.J. Webster, “In vitro and in vivo efficacy of nano-dimensional bladder tissue replacement constructs,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
205. L. Smith (speaker)*, K.M. Haberstroh, and T.J. Webster, “Select increased osteoblast functions on NaOH-treated PLGA,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
206. C. Yao (speaker)*, E.B. Slamovich, and T.J. Webster, “Titanium nanosurface modification by anodization for orthopedic applications,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
207. G. Balasundrum (speaker)*, M. Sato, A.M. Friedman, R.V. Weatherman, and T.J. Webster, “Chemically functionalized nanoparticles for the treatment of osteoporosis,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
208. V. Perla (speaker)*, M. Sato, and T.J. Webster, “Creation of a calcified zone of implant-tendon entheses by novel nano-hydroxyapatite dispersions in porcine small intestine sub-mucosa,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
209. S. Choudhary (speaker)*, K.M. Haberstroh, and T.J. Webster, “Increased adhesion of vascular endothelial cells to nanophase titanium,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
210. G.E. Park (speaker)*, K. Park, and T.J. Webster, “Fibronectin and vitronectin interactions with NaOH-treated PLGA increases chondrocyte functions,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
211. D.C. Miller (speaker)*, K. Haberstroh, and T.J. Webster, “Optimizing interactions of fibronectin on nano-structured polymer films for vascular applications,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
212. V. Perla and T.J. Webster (speaker), “Targeting orthopedic implant associated cancers by novel nano-particulate selenium,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
213. M. Sato (speaker)*, M.A. Sambito, A. Aslani, N.M. Kalkhoran, E.B. Slamovich, and T.J. Webster, “Iontite nanophase hydroxyapatite coatings for orthopedic applications,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
214. H. Liu (speaker)*, E.B. Slamovich, and T.J. Webster, “Nanophase titania/PLGA scaffolds for bone tissue engineering applications: titania dispersion and osteoblast response,” presented at the Society for Biomaterials Annual Meeting, Memphis, TN, 2005.
215. G. Balasundrum (speaker)*, J. Fleet, C. Weaver, A. Friedman, R. Weatherman, and T.J. Webster, “Nanoparticles for the treatment of osteoporosis,” presented at the AIChE Annual Meeting, Cincinnati, OH, 2005.
216. D. Khang (speaker)*, M. Sato*, and T.J. Webster, “Directed calcium deposition by osteoblast along carbon nanofiber patterns in polymers,” presented at the AIChE Annual Meeting, Cincinnati, OH, 2005.

217. G. Balasundrum (speaker)*, J. Fleet, C. Weaver, A. Friedman, R. Weatherman, and T.J. Webster, "Nanoparticles for the treatment of osteoporosis," presented at the AIChE Annual Meeting, Cincinnati, OH, 2005.
218. L. Smith (speaker)*, K.M. Haberstroh, and T.J. Webster, "Hydroxyapatite embedded nano-structured PLGA for tissue engineering applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
219. D.C. Miller (speaker)*, K.M. Haberstroh, and T.J. Webster, "Optimization of fibronectin adsorption to nano-structured polymer films for vascular applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
220. J. McCann (speaker)*, T. J. Webster, and K.M. Haberstroh, "The influence of physiological and pathological mechanical forces on vascular cells," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
221. M. Pattison (speaker)*, A. Thapa*, T. J. Webster, and K.M. Haberstroh, "The use of nano-dimensional PLGA and PU scaffolds in bladder tissue replacement applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
222. S. Choudhary (speaker)*, K. M. Haberstroh, and T. J. Webster, "Increased adhesion of vascular cells to nanophase titanium for stent applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
223. D. Khang (speaker)* and T. J. Webster, "The role of fibronectin in enhancing osteoblast function on aligned carbon nanofibers," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
224. C. Yao (speaker)*, E.B. Slamovich, and T. J. Webster, "Nanostructured anodized titanium increases osteoblast functions," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
225. G. Balasundrum (speaker)* and T. J. Webster, "Chemical and magnetic delivery of calcium phosphate nanoparticles for treating osteoporosis," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
226. G. Balasundrum (speaker)*, L. Block, H. Daniels, and T. J. Webster, "Titanium and Ti6Al4V modified with silica nanowires for improved orthopedic implant applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
227. J. McKenzie (speaker)* and T.J. Webster, "Carbon nanofiber materials direct protein adsorption, conformation, and resulting neuron interactions," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
228. G. Colon*, B.C. Ward*, and T.J. Webster (speaker), "Increased osteoblast and decreased bacteria growth on nanophase ZnO," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
229. J. Swain (speaker)* and T.J. Webster, "Nanostructured materials for entheses applications," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
230. M. Nelson (speaker)*, G. Balasundrum*, and T.J. Webster, "Nanoparticles for treating osteoporosis," presented at the BMES Annual Meeting, Baltimore, MD, 2005.
231. T.J. Renk (speaker), P.P. Provencio, S.V. Prasad, T.E. Buchheit, T. J. Webster, T. Petersen, D.W. Petersen, "Investigation of mechanical properties of surfaces and coatings treated by intense ion beams for in-body applications," presented at the ICMCTF, San Diego, 2006.

232. H. Liu (speaker)*, E.B. Slamovich, and T.J. Webster, “Titania nanoparticle/poly-lactic-co-glycolic acid (PLGA) composites for bone tissue engineering”, presented at the Materials Engineering Graduate Student Association, Purdue University, West Lafayette, 2005.
233. M. Sato (speaker)*, E.B. Slamovich, and T.J. Webster, “Improved osteoblast function on IonTite™ nano-hydroxyapatite coatings,” presented at the Materials Engineering Graduate Student Association, Purdue University, West Lafayette, 2005.
234. G. Balasundrum (speaker)*, M. Sato*, and T.J. Webster, “Nano-structured biodegradable ceramics for the treatment of osteoporosis,” presented at the NSTI Nanotech 2006, Boston, MA, 2006.
235. H. Liu (speaker)*, E. B. Slamovich, and T.J. Webster, “Less harmful acidic degradation products for PLGA with nanoparticle titania addition,” presented at the NSTI Nanotech 2006, Boston, MA, 2006.
236. C. Yao (speaker)*, E.B. Slamovich, and T.J. Webster, “Increased osteoblast adhesion on nano-rough anodized titanium and CoCrMo,” presented at the NSTI Nanotech 2006, Boston, MA, 2006.
237. T. Renk, M. Sato (speaker)*, and T.J. Webster, “Materials Processing of surfaces and coatings by intense ion beams for in-body applications,” presented at the MRS Annual Meeting, Boston, MA, 2006.
238. G. Balasundrum (speaker)* and T.J. Webster, “Increased osteoblast functions on Ti nanopatterned with peptides,” presented at Nanoparticles 2006, Orlando, FL, 2006.
239. G. Balasundaram (speaker)* and T.J. Webster, “Biodegradable nano ceramics functionalized with peptides for the treatment of osteoporosis,” presented at the ICCE Conference, Boulder, CO, 2006.
240. H. Liu (speaker)* and T.J. Webster, “Nanophase titania/poly(lactic-co-glycolic acid) composites for drug delivery applications,” presented at the AAPS 2006 Meeting, Boston, MA, 2006.
241. J. Lu (speaker)* and T.J. Webster, “Highly controlled versus random nanometer roughness on titanium for vascular stent applications,” presented at the AAPS 2006 Meeting, Boston, MA, 2006.
242. C. Yao (speaker)* and T.J. Webster, “Titania nano-tubular nanostructures as novel drug delivery devices for orthopedic applications,” presented at the AAPS 2006 Meeting, Boston, MA, 2006.
243. G. Balasundaram (speaker)* and T.J. Webster, “Nanoceramic based drug delivery system for treating osteoporosis,” presented at the AAPS 2006 Meeting, Boston, MA, 2006.
244. B. Ercan (speaker)* and T.J. Webster, “Stem cell differentiation on nanostructured carbon surfaces,” presented at the AAPS 2006 Meeting, Boston, MA, 2006.
245. C. Yao (speaker)*, T.J. Webster, H. Rack, “Cell formation enhancement on T-based orthopedic implant based materials,” presented at the annual TMS meeting, San Antonio, TX, 2006.

246. D. Khang (speaker)* and T. J. Webster, “Why are bone cell functions enhanced on carbon nanotubes ?,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
247. M. Sato (speaker)* and T. J. Webster, “Increased in vivo bone growth on nanophase ceramic coated metal implants”, presented at the BMES Meeting 2006, Chicago, IL, 2006.
248. D. Khang (speaker)*, J. Y. Kim*, J. E. Kim, and T. J. Webster, “Carbon nanotube delivery of stem cells to heal stroke damage,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
249. G. Balasundaram (speaker)* and T.J. Webster, “Hydroxyapatite coated magnetic nanoparticles for the treatment of osteoporosis,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
250. T. J. Webster, K. M. Haberstroh (speaker), “Biocompatibility of nano-structured PLGA/PU scaffolds for bladder tissue engineering applications,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
251. L. Zhang (speaker)*, A. L. Chun*, H. Fenniri, T. J. Webster, “Helical rosette nanotubes for orthopaedic applications,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
252. H. Liu (speaker)* and T. J. Webster, “PLGA/titania nanoparticle composites for more effective orthopedic applications,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
253. K. M. Haberstroh (speaker) and T. J. Webster, “Undergraduate translational research in engineering at Brown University,” presented at the BMES Meeting 2006, Chicago, IL, 2006.
254. S. Sirivisoot (speaker)* and T.J. Webster, “Developing biosensors for monitoring orthopedic tissue growth,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
255. S. Sirivisoot (speaker)*, C. Yao, X. Xiao, B. Sheldon and T. J. Webster, “Developing biosensors for monitoring orthopedic tissue growth,” presented at the American Institute of Chemical Engineering, San Francisco, CA, 2006.
256. S. Sirivisoot (speaker)*, C. Yao, X. Xiao, B. Sheldon and T. J. Webster, “Developing biosensors for monitoring orthopedic tissue growth,” presented at the Biomedical Engineering Society, Chicago, IL, 2006.
257. G. Balasundaram (speaker)* and T.J. Webster, “Increased osteoblast functions on Ti nanopatterned with peptides,” presented at Particles 2006: Medical/Biochemical Diagnostic, Pharmaceutical, and Drug Delivery Applications of Particle Technology, Orlando, FL, 2006.
258. P. Bajaj (speaker)*, D. Khang*, T.J. Webster, “Controlled fibroblast, smooth muscle cell, and endothelial cell adhesion on carbon nanofibers aligned on polymers,” presented at the Summer Bioengineering Conference, Vail, CO, 2006.
259. X. Xiao (speaker), B. W. Sheldon, J. Rankin, A. Yan, R. Hurt, S. Sirivisoot*, T. J. Webster, E. Konca, Y. T. Cheng, O. Auciello, J.A. Carlisle, “Surface wettability of nanostructured carbon materials-from superhydrophobicity to superhydrophilicity,” presented at the Materials Research Society Fall Meeting, Boston, MA, 2006.

260. B. Ercan (speaker)*, T.J. Webster, “Enhanced stem cell adhesion and spreading on carbon nanotubes grown on anodized titanium,” presented at the Materials Research Society Fall Meeting, Boston, MA, 2006.
261. M. Sato (speaker)* and T. J. Webster, “Increased in vivo bone growth on nanophase ceramic coated metal implants” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
262. H. Liu (speaker)* and T.J. Webster, “Nanophase titania/PLGA (poly-lactic-co-glycolide) composites for bone tissue engineering applications,” presented at the Methods in Bioengineering, MIT, Boston, MA, 2006.
263. S. Sirivisoot (speaker)*, C. Yao, X. Cheng, B. Sheldon, T.J. Webster, “Developing biosensors for monitoring orthopedic tissue growth,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.
264. B. Ercan (speaker)* and T. J. Webster, “Carbon nanotubes as a potential scaffold material for stem cell differentiation in vitro,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
265. G. Balasundaram (speaker)* and T. J. Webster, “Magnetic nanoparticles for the treatment of osteoporosis,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
266. J. Lu (speaker)* and T. J. Webster, “Endothelial cell adhesion on highly controllable nanostructured titanium surface features for improved vascular stent applications,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
267. C. Yao (speaker)* and T. J. Webster, “Increased osteoblast adhesion on nano-rough anodized titanium and CoCrMo,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
268. L. Zhang (speaker)*, H. Fenirri, and T. J. Webster, “Helical rosette nanotubes for orthopedic applications,” presented at the First Annual Methods in Bioengineering Conference, Cambridge, MA, 2006.
269. M. Rao (speaker) and T. J. Webster, “Aligned nanofeatures for orthopaedic applications,” presented at the Indiana Health Science Forum, Indianapolis, IN, 2006.
270. G. Aninwene (speaker)*, C. Yao*, and T. J. Webster, “Drug release from anodized Ti,” presented at the 2006 Annual Biomedical Research Conference for Minority Students (ABRCMS), Anaheim, CA, 2006.
271. H. Liu (speaker)* and T.J. Webster, “Polymer/ceramic nanocomposite tissue engineering scaffolds for more effective orthopedics applications,” presented at the Materials Research Society Fall Meeting, Boston, MA, 2006.
272. H. Liu (speaker)* and T.J. Webster, “From nano to micro: nanostructured titania/PLGA orthopaedics tissue engineering scaffolds assembled by three-dimensional printing,” presented at the American Institute of Chemical Engineering Annual Meeting, San Francisco, CA, 2006.
273. H. Liu (speaker)*, C. Ergun, T.J. Webster, “Increased osteoblast adhesion on nanograined hydroxyapatite/calcium titanate and tricalcium phosphate/calcium titanate composites,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.

274. J. Lu (speaker)* and T.J. Webster, “Highly controlled versus random nanometer roughness on titanium for vascular stent applications,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.
275. J. Lu (speaker)* and T.J. Webster, “Controlling endothelial cell functions on nanostructured Ti,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
276. H. Liu (speaker)* and T.J. Webster, “Nanoceramics for healing bone,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
277. D. Khang (speaker)* and T.J. Webster, “Enhanced fibronectin adsorption on carbon nanotubes in polycarbonate urethane composites directs osteoblast adhesion,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
278. J.Y. Kim (speaker)*, D. Khang*, T.J. Webster, “Decreased macrophage density on carbon nanofiber patterns,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.
279. L. Zhang (speaker)*, S. Ramsaywack, H. Fenniri, T.J. Webster, “Helical rosette nanotubes as a biomimetic tissue engineering scaffold material,” presented at the American Institute of Chemical Engineers Annual Conferences, San Francisco, CA, 2006.
280. L. Zhang (speaker)*, S. Ramsaywack, H. Fenniri, T.J. Webster, “Development of novel nanostructured tissue engineering scaffold materials through self-assembly for bed-side orthopaedic applications,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.
281. C. Yao (speaker)*, G. Balasundaram, T.J. Webster, “Use of anodized titanium in drug delivery applications,” presented at the Materials Research Society Annual Fall Meeting, Boston, MA, 2006.
282. P. Liu-Synder (speaker)* and T.J. Webster, “In vitro evaluation of macrophage activity on nanophase ceramics,” presented at the Annual Materials Research Society Meeting, Boston, MA, 2006.
283. G. Balasundaram (speaker)* and T.J. Webster, “Nanostructured particles for treating bone diseases,” presented at the Annual Materials Research Society Meeting, Boston, MA, 2006.
284. J.A. Leslie, K. Martin, T.J. Webster, K.M. Haberstroh (speaker), “Biocompatibility of nanostructured PLGA/PU scaffolds for bladder tissue engineering applications,” presented at the Biomedical Engineering Society Annual Meeting, Chicago, IL, 2006.
285. A. Reising (speaker)*, D. Storey, T.J. Webster, “Increased osteoblast functions on Ionic Fusion nanostructured coatings,” presented at the Biomedical Engineering Society Annual Meeting, Chicago, IL, 2006.
286. A. Cohen (speaker)*, D. Storey, T.J. Webster, “Decreased fibroblast functions on Ionic Fusion nanostructured coatings,” presented at the Biomedical Engineering Society Annual Meeting, Chicago, IL, 2006.
287. A. Ricker (speaker)*, P. Liu-Synder, T.J. Webster, “Nanostructured bone cements for orthopaedic applications,” presented at the Biomedical Engineering Society Annual Meeting, Chicago, IL, 2006.

288. B. Ercan (speaker)* and T.J. Webster, “Stem cell differentiation on nano-structured carbon surfaces,” presented at the NSTI meeting, Boston, MA, 2006.
289. G. Balasundrum (speaker)* and T.J. Webster, “Magnetic nanoparticles for treating bone diseases,” presented at the NSTI Nanotech 2006, Boston, MA, 2006.
290. J. Lee, Y. Kim*, D. Khang*, T.J. Webster (speaker), “Stem cell impregnated carbon nanotubes/nanofibers for treating stroke,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
291. J. Lee (speaker), Y. Kim*, D. Khang*, T.J. Webster, “Stem cell impregnated carbon nanotubes/nanofibers for treating stroke,” presented at the American Society for Neurophysiology, New Orleans, LO, 2006.
292. H. Liu (speaker)* and T.J. Webster, “Degradation kinetics of PLGA mediated by titania nanoparticles,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
293. M. Sato (speaker)*, M. Little, N. Kalkhoran, A. Aslani, T.J. Webster, “Mechanisms of increased osteoblast adhesion on nanostructured undoped and Y-doped hydroxyapatite coatings on titanium,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
294. K. Calvert (speaker)*, K. Trumble, T.J. Webster, “Bone analog develop for orthopedic device evaluation,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
295. K. Haberstroh (speaker) and T.J. Webster, “Nano-dimensional bladder tissue engineering constructs: an in vivo study,” presented at the Society for Biomaterials Annual Meeting, Pittsburgh, PA, 2006.
296. J. A. Leslie, M. Kaefer, T. J. Webster, and K. M. Haberstroh (speaker), “In vivo biocompatibility properties of nano-structured PLGA and PU scaffolds for bladder tissue engineering applications,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
297. B. Ercan (speaker)*, C. Yao, X. Xiao, B. W. Sheldon, T. J. Webster, “Enhanced stem cell adhesion on carbon nanotubes grown from anodized titanium,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
298. G. Balasundaram (speaker)* and T. J. Webster, “Magnetic nanoparticles for the treatment of osteoporosis,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
299. G. Balasundaram (speaker)* and T. J. Webster, “Nanophase materials for orthopedic implant applications,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
300. S. Sirivisoot (speaker)*, C. Yao*, X. Xiao, B. Sheldon, and T.J. Webster, “Developing biosensors for monitoring orthopedic tissue growth,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
301. J. Lu (speaker)* and T. J. Webster, “Increased endothelial cell adhesion on nanopatterned compared to disordered nano-features on titanium,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
302. C Yao (speaker)*, E. B. Slamovich, and T. J. Webster, “Increased osteoblast adhesion on nano-rough anodized titanium and CoCrMo,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.

303. H. Liu (speaker)* and T. J. Webster, “Less harmful acidic degradation of polylactic-co-glycolic acid containing nanophase titania,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
304. L. Zhang (speaker)*, A.L. Chun, H. Fenniri and T.J. Webster, “Helical rosette nanotubes for orthopaedic applications,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
305. K. M. Haberstroh (speaker), A. B. Kane, T. J. Webster, and R. H. Hurt, “Educational initiatives related to nanomedicine at Brown University,” presented at the Showcase of Nanomedicine, Brown University, Providence, RI, 2006.
306. H. Liu (speaker)* and T. J. Webster, “Favored cellular interactions with aerosol printed 3D nano-to-macro hierarchical architectures: promise of nanocomposites as next generation orthopedic prostheses,” presented at NSTI, Anaheim, CA, 2007.
307. J. Lu (speaker)* and T.J. Webster, “Endothelial cell adhesion on highly controllable compared to random nanostructured Ti surface features,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
308. G. E. Aninwene (speaker)*, C. Yao*, T.J. Webster, “Enhanced drug coating on anodized titanium to promote osteoblast adhesion,” presented at the Biomedical Engineering Society, Los Angeles, CA, 2007.
309. J. E. Carpenter (speaker)* and T.J. Webster, “Optimization of highly-ordered, nanostructured PLGA surfaces for vascular tissue growth,” presented at the Biomedical Engineering Society, Los Angeles, CA, 2007.
310. J. Wang (speaker)* and T.J. Webster, “PGA/PLLA scaffolds for articular cartilage regeneration,” presented at the Biomedical Engineering Society, Los Angeles, CA, 2007.
311. J. T. Seil (speaker)*, D. Hoffman-Kim, T.J. Webster, “Micropatterned zinc oxide nanoparticle substrate preparation and analysis,” presented at the Methods in Bioengineering, MIT, Cambridge, MA, 2007.
312. S. Sirivisoot (speaker)*, C. Yao*, X. Cheng, B. W. Sheldon, T.J. Webster, “Carbon nanotube-titanium electrodes for detecting calcium deposition by osteoblasts,” presented at the Methods in Bioengineering, MIT, Cambridge, MA, 2007.
313. S. Sirivisoot (speaker)*, C. Yao*, X. Xingcheng, B. W. Sheldon, and T.J. Webster, “Carbon nanotube-titanium electrodes for detecting calcium deposition by osteoblasts,” presented at the Graduate Materials Links (GML) Intercollegiate Symposium on Interdisciplinary Graduate Research, Northeastern University, Boston, MA, 2007.
314. L. Zhang (speaker)*, S. Ramsaywack, H. Fenniri, T.J. Webster, “Bone-like nanocomposites: Functionalized helical rosette nanotubes and biocompatible hydrogels for orthopedic applications,” presented at the Methods in Bioengineering, MIT, Cambridge, MA, 2007.
315. L. Zhang (speaker)*, S. Ramsaywack, H. Fenniri, T.J. Webster, “Design of nanostructured hydrogel composites with functionalized helical rosette nanotubes for in situ curable orthopedic materials,” presented at the American Chemical Society Annual Meeting, Boston, MA, 2007.

316. C. Yao (speaker)*, G. Aninwene II*, T.J. Webster, “Drug incorporation into nanotubes anodized on titanium implants,” presented at the American Chemical Society Annual Meeting, Boston, MA, 2007.
317. A. Nuriddin (speaker)*, J. Seil*, T.J. Webster, “Micropatterns of nanoparticulate SiO₂ for nerve guidance channels,” presented at the NSF GK-12 Conference, Brown University, Providence, RI, 2007.
318. O. Adegbesan (speaker)*, L. Zhang*, Y.Chen*, T.J. Webster, “Helical rosette nanotubes embedded with hydroxyapatite for orthopedic applications,” presented at the NSF GK-12 Conference, Brown University, Providence, RI, 2007.
319. L. Sarin (speaker)*, P. Tran, T. J. Webster, R. H. Hurt, “Titanium surface decorated with selenium nanoclusters – A novel promising material for orthopedic applications”, presented at the World Biomaterials Congress, Amsterdam, Holland, 2008.
320. G. Aninwene (speaker)*, C. Yao, T.J. Webster, “Enhancing drug coating of anodized titanium to promote osteoblast adhesion,” presented at the Leadership Alliance Symposium, Stamford, CN, 2007.
321. P. Tran (speaker)* and T.J. Webster, “Promising anti-cancer orthopedic material: nanostructured selenium,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
322. S. Puckett (speaker)* and T.J. Webster, “Effect of aligned nano patterned titanium on controlling bone growth,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
323. H. Liu (speaker)* and T.J. Webster, “Well dispersed nano-titania in PLGA composites promote bone cell functions and mechanical strength,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
324. B. Ercan (speaker)* and T.J. Webster, “Electrical stimulation to enhance proliferation of mesenchymal stem cells,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
325. C. Yao (speaker)* and T.J. Webster, “Enhanced chondrocyte functions on anodized titanium,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
326. J. Seil (speaker)* and T.J. Webster, “Neural cell adhesion and organization on micropatterned zinc oxide nanoparticle substrates,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
327. R. Pareta (speaker)* and T.J. Webster, “Encapsulation of neural cells in nano-featured polymer scaffolds,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
328. P. Liu-Synder* and T.J. Webster (speaker), “Reduced macrophage functions on Nanomaterials,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
329. Y. Chen (speaker)* and T.J. Webster, “Bioactive BMP-7 short peptides: A novel implant material coating to improve osteoblast functions,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
330. J. Lu (speaker)* and T.J. Webster, “Enhanced endothelial cell adhesion and proliferation on nitinol surfaces,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.

331. L. Yang (speaker)* and T.J. Webster, “Enhanced osteoblast adhesion on nano crystallized diamond,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
332. L. Zhang (speaker)* and T.J. Webster, “Developing a novel injectable nanostructured bone substitute based on helical rosette nanotubes,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
333. D. Khang*, J. Lu*, and T.J. Webster (speaker), “Rationally-designed, patterned Ti surfaces for improved endothelialization in vascular stents,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
334. C. Yao (speaker)* and T.J. Webster, “Development of nanotubular drug-eluting titanium orthopedic implants,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
335. D. Khang (speaker)* and T.J. Webster, “Tailoring implants to individual patients before insertion to ensure implant success,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
336. S. Sirivisoot (speaker)*, T.J. Webster, “Multiwalled carbon nanotube-titanium electrodes for the determination of osteoblast calcium deposition,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
337. A. Ranjan (speaker)*, and T.J. Webster, “Cardiac tissue regeneration by human embryonic stem cell differentiation on nano patterned hydrogels,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
338. T.J. Webster (speaker), D. Khang*, and J. Lee, “Faster return of motor function to stroke-induced rats using carbon nanotubes and stem cells,” presented at the BMES Annual Meeting, Los Angeles, CA, 2007.
339. H. Liu (speaker)* and T.J. Webster, “Nanostructured titania/PLGA composite scaffolds improve cytocompatibility and mechanical strength for better bone regeneration,” presented at the 2007 AIChE Annual Meeting, Salt Lake City, UT, 2007.
340. H. Liu (speaker)* and T.J. Webster, “Nano-dispersed particulate ceramics in polylactide-co-glycolide composites improve implantable bone substitute properties,” presented at the MRS Fall Meeting, Boston, MA, 2007.
341. J. Lu (speaker*) and T.J. Webster, “Vascular and bone cell adhesion on nano and sub-micron surface roughness,” presented at the MRS Fall Meeting, Boston, MA, 2007.
342. Y. Chen (speaker)* and T.J. Webster, “An injectable implant material functionalized with bioactive BMP-7 short peptides for orthopaedic applications,” presented at the American Institute of Chemical Engineers, Salt Lake City, UT, 2007.
343. Y. Chen (speaker)* and T.J. Webster, “Helical rosette nanotubes functionalized with bioactive BMP-7 short peptides for orthopaedic applications,” presented at the American Chemical Society, Boston, MA, 2007.
344. Y. Chen (speaker)* and T.J. Webster, “Increased bone cell functions in the presence of BMP-7 short peptides for orthopaedic applications,” presented at NSTI, Boston, MA, 2007.
345. S. Sirivisoot (speaker)*, C. Yao*, X. Xingcheng, B. W. Sheldon, and T.J. Webster, “Conjugated polypyrrole-poly(lactic-co-glycolic acid) coated carbon

- nanotubes grown out of titanium for the in situ control of bone growth,” presented at the Orthopedic Research Society Conference, San Francisco, CA, 2008.
346. S. Sirivisoot (speaker)*, C. Yao*, X. Xingcheng, B. W. Sheldon, and T.J. Webster, “Biosensing osteoblast differentiation in vitro through multiwalled carbon nanotubes grown out of titanium,” presented at the 8th World Biomaterials Congress, Amsterdam, HOLLAND, 2008.
 347. S. Sirivisoot (speaker)*, C. Yao*, X. Xingcheng, B. W. Sheldon, and T.J. Webster, “Penicillin-streptomycin electrical release from polypyrrole-conjugated poly(lactic-co-glycolic acid) film on titanium to support bone growth,” presented at NSTI, Boston, MA, 2008.
 348. S. Sirivisoot (speaker)*, C. Yao*, X. Xingcheng, B. W. Sheldon, and T.J. Webster, “Surface characteristics of multiwalled carbon nanotubes grown out of titanium for monitoring bone formation,” presented at the Graduate Materials Links (GML) Intercollegiate Symposium on Interdisciplinary Graduate Research, Northeastern University, Boston, MA, 2008.
 349. C. Yao (speaker)* and T.J. Webster, “Drug incorporation into nanotubes anodized on titanium implants,” presented at the Materials Research Society Meeting, Boston, MA, 2007.
 350. R. Pareta (speaker)* and T.J. Webster, “Neural cell encapsulation in PLGA using co-axial electrospinning,” presented at the AIChE Annual Meeting, Salt Lake City, UT, 2007.
 351. R. Pareta (speaker)* and T.J. Webster, “Nanofeatured cell encapsulation alginate and PLGA scaffolds,” presented at the Materials Research Society Annual Meeting, Boston, MA, 2007.
 352. R. Pareta (speaker)* and T.J. Webster, “Encapsulation of neural cells in nanofeatured polymer scaffolds,” presented at the 8th World Biomaterials Congress, Amsterdam, HOLLAND, 2008.
 353. L. Yang (speaker)*, B. Sheldon, and T.J. Webster, “Nano diamond for orthopedic applications,” presented at the 8th World Biomaterials Congress, Amsterdam, HOLLAND, 2008.
 354. E. Taylor (speaker), R.Pareta*, and T.J. Webster, “Magnetic nanoparticles for orthopedic applications,” presented at the Biomedical Engineering Society, Los Angeles, CA, 2007.
 355. H. Liu (speaker)* and T.J. Webster, “Nanocomposites for orthopedic applications,” Northeast Consortium, University of Massachusetts, Dartmouth, MA, 2007.
 356. D. Khang (speaker)* and T.J. Webster, “Creating implants for better immune cell responses: Focus on nanotechnology,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
 357. L. Zhang (speaker)*, H. Fenirri, and T.J. Webster, “Self-assembled nanomaterials for orthopedic applications,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
 358. H. Liu (speaker)* and T.J. Webster, “3D nanocomposites and nano-structural influences on osteoblast functions,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.

359. S. Sirivisoot (speaker)* and T.J. Webster, “Novel carbon nanotube based sensors for orthopedic sensing,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
360. P. Liu-Snyder (speaker)*, D. Khang, and T.J. Webster, “Macrophage interactions with nanomaterials,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
361. C. Yao (speaker)* and T.J. Webster, “Drug elution from anodized titanium,” presented at the Society for Biomaterials meeting, Chicago, IL, 2007.
362. S. Puckett (speaker)* and T.J. Webster, “Enhanced osteoblast adhesion on micron patterns of nanostructured features,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
363. J. Lu (speaker)*, D. Khang, and T.J. Webster, “Directed endothelial cell function on aligned nanostructured features,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
364. J. Seil (speaker)* and T.J. Webster, “Neuronal cell functions on nano zinc oxide polymer composites,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
365. P. Liu-Snyder (speaker)* and T.J. Webster, “Decreased macrophage function on nanophase alumina,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
366. C. Yao (speaker)* and T.J. Webster, “Improved drug elution from anodized titanium,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
367. Y. Chen (speaker)* and T.J. Webster, “Bioactive regions of bone growth factors improve osteoblast functions,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
368. L. Zhang (speaker)* and T.J. Webster, “Self-assembled helical rosette nanotubes as injectable materials for orthopedic applications,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
369. P. Tran (speaker)* and T.J. Webster, “Development of anti-cancer nanoparticulate selenium for bone implants,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
370. A. Ranjan (speaker)* and T.J. Webster, “Cardiac myocyte functions on nanostructured hydrogels,” presented at the 33rd Annual Northeast Bioengineering Conference, SUNY-Stony Brook, Stony Brook, NY, 2007.
371. T.J. Webster (speaker)*, “Functionalized nanomaterials for reversing osteoporosis,” MRS Annual Spring Meeting, San Francisco, 2008.
372. J. Seil (speaker)* and T.J. Webster, “Neural cell adhesion and organization on micropatterned zinc oxide nanoparticle substrates,” presented at the Neurobiology Conference, San Diego, CA, 2007.
373. A. Ranjan (speaker)* and T.J. Webster, “Nanostructured hydrogels for vascular applications,” to be presented at the 8th World Biomaterials Congress, Amsterdam, 2008.

374. J. Carpenter*, D. Khang, and T.J. Webster, "Submicron lateral and vertical surface features: Influence of surface energy on vascular cell adhesion," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
375. L. Zhang*, F. Rakotondradany, A. Myles, H. Fenirri, T.J. Webster, "New RGD modified self-assembled helical rosette nanotubes in hydrogels for improved bone tissue engineering applications," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
376. C. Yao* and T.J. Webster, "Drug delivering anodized nanotubular titanium surfaces enhance osteoblast adhesion," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
377. J. Lu*, D. Khang*, C. Yao, and T.J. Webster, "Increased vascular cell adhesion on titanium: The role of nano and sub-micron surface features," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
378. P. Tran*, L. Sarin, R. Hurt, and T.J. Webster, "Promising orthopedic materials for bone cancer patients: Titanium coated with selenium nanoclusters," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
379. A. Ranjan* and T.J. Webster, "Micron-patterned nano rough polymers for cardiovascular tissue engineering," 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
380. H. Liu* and T.J. Webster, "Improved mechanical properties of nanophase titania/PLGA (poly-lactide-co-glycolide) composites for orthopedic applications," 34th Annual Northeast Bioengineering Conference Proceedings, Providence, RI, 2008.
381. M.P. Rao, J. Lu*, H.P. Aguilar, D. Khang, N.C. MacDonald, and T.J. Webster, "Rationally-designed surface nanopatterning: A potentially new means for enhancing safety & efficacy of vascular stents," presented at the American Society for Testing Materials Conference, Detroit, MI, 2008.
382. L. Zhang*, J. Rodriguez, H. Fenniri, T.J. Webster, "Investigating helical rosette nanotubes and nanocrystalline hydroxyapatite as novel bone-like biomaterials for orthopedic applications," presented at the NSTI Conference Proceeding, Boston, MA, 2008.
383. S. Sirivisoot*, R. Pareta*, and T.J. Webster, "Drug loaded polypyrrole coating on titanium for supporting bone growth and inhibiting fibrosis," Materials Research Society Annual Fall Meeting, Boston, MA, 2008.
384. S. Sirivisoot*, R. Pareta*, and T.J. Webster, "Drug loaded polypyrrole coating on titanium for supporting bone growth and inhibiting fibrosis," Biomedical Engineering Society Annual Conference, St. Louis, MO, 2008.
385. S. Sirivisoot*, R. Pareta*, and T.J. Webster, "Multiwalled carbon nanotubes grown from anodized titanium for sensing new bone growth," Society for Biomaterials Translational Medicine Conference, Atlanta, GA, 2008.
386. S. Sirivisoot* and T.J. Webster, "Antibiotic release using nanostructured polypyrrole-coated titanium to decrease Staphylococcus Epidermis colonization," presented at the Society for Biomaterials Annual Meeting, San Antonio, TX, 2009.
387. S. Sirivisoot*, R. Pareta*, and T.J. Webster, "Electrically-controlled penicillin/streptomycin release from nanostructured polypyrrole coated titanium

- for orthopedic implants,” European Materials Research Society (E-MRS) Fall Meeting, Warsaw, POLAND, 2008.
388. S. Sirivisoot* and T.J. Webster, “Multiwalled carbon nanotubes grown from anodized titanium for sensing new bone growth,” 34th Annual Northeast Bioengineering Conference, Brown University, Providence, RI, 2008.
 389. S. Sirivisoot*, C. Yao*, X. Xiao, B. W. Sheldon, and T.J. Webster, “Multiwalled carbon nanotube-titanium electrodes for electrochemical release of anti-cancer bone drugs,” GEM4 Conference on Cancer in conjunction with the International Conference on Materials for Advanced Technologies (ICMA), SINGAPORE, 2007.
 390. P. P. Lee*, S. Puckett*, and T.J. Webster, “Enhanced keratinocyte growth on anodized titanium,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 391. E. Fine*, L. Zhang*, and T.J. Webster, “Increased endothelialization on rosette nanotube coated titanium,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 392. M. Merritt*, K. Haberstroh, and T.J. Webster, “Greater endothelial cell response on nanostructured coated titanium,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 393. B. Ercan* and T.J. Webster, “Greater osteoblast functions on electrically stimulated anodized titanium,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 394. Y. Chen* and T.J. Webster, “A novel biomimetic cartilage sealant: Helical rosette nanotubes,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 395. S. Puckett* and T.J. Webster, “Increased osteoblast functions on anodized nanotubular titanium for percutaneous devices,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 396. Y.W. Chun* and T.J. Webster, “Enhanced urothelial cell density of nanostructured polymers,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 397. L. Yang*, B. Sheldon, and T.J. Webster, “Greater osteoblast functions on nanostructured diamond,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 398. J. Seil* and T.J. Webster, “Nanostructured zinc oxide for neural tissue regeneration,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 399. J. Seil*, T.J. Webster, K.H. Haberstroh, “Promoting science learning in Providence public schools,” Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
 400. N. Tran* and T.J. Webster, “Using nanostructured selenium to reverse bone cancer,” THERMEC’09, Berlin, GERMANY, 2009.
 401. P. Tran* and T.J. Webster, “Developing magnetic nanoparticles to fight various bone diseases,” THERMEC’09, Berlin, GERMANY, 2009.

402. L. Yang*, B. Sheldon, and T.J. Webster, "Increased osteoblast long-term functions on nanostructured diamond," to be presented at the 2009 Annual Society for Biomaterials Conference, San Antonio, TX, 2008.
403. L. Yang*, B. Sheldon, and T.J. Webster, "Osteoblast adhesion on diamond with various diamond surface features," Materials Research Society Annual Meeting, Boston, MA, 2008.
404. L. Yang*, B. Sheldon, and T.J. Webster, "Greater osteoblast adhesion on nanostructured diamond," American Institute of Chemical Engineers Annual Meeting, Philadelphia, PA, 2008.
405. Y. Chen*, R. Pareta*, H. Fenniri, and T.J. Webster, "Self-assembled nanometer-rough cartilage sealants for orthopedic applications," American Institute of Chemical Engineering Annual Meeting, Philadelphia, PA, 2008.
406. Y. Chen*, H. Fenniri, and T.J. Webster, "A self-assembled, drug-deliverable nanomaterial for cartilage tissue engineering," Materials Research Society Annual Meeting, Boston, MA 2008.
407. J. Lu* and T.J. Webster, "The design of better vascular stents through nanotechnology," Annual Biomedical Engineering Society Meeting, St. Louis, MO, 2008.
408. J. Lu* and T.J. Webster, "Enhanced vascular endothelial cell function on nanostructured titanium surface features: The roles of nano to submicron roughness", Annual Materials Research Society Fall Meeting, Boston, MA, 2008.
409. J. Lu* and T.J. Webster, "Greater endothelialization of nanostructured to sub-micron structured metals for vascular stent applications," NSTI, Boston, MA, 2008.
410. C. Yao* and T.J. Webster, "Greater osteoblast functions on anodized nanotubular titanium," NSTI, Boston, MA, 2008.
411. Y.W. Chun* and T.J. Webster, "Increased urothelialization with decreased calcium stone formation on nanostructured polymers," Annual Materials Research Society Meeting, Boston, MA, 2008.
412. S. Sirivisoot*, R.A. Pareta*, and T.J. Webster, "Design of an intelligent in situ nanotechnology sensor for determining bone growth," SBE's 4th International Conference on Bioengineering and Nanotechnology (ICBN), Dublin, IRELAND, 2008.
413. S. Sirivisoot*, R.A. Pareta*, and T.J. Webster, "The development of nanotechnology-based in situ sensors to determine tissue growth next to implants," 3rd Tissue Engineering Conference, Rhode GREECE, 2008.
414. R.A. Pareta*, and T.J. Webster, "Novel cell encapsulation in hydrogels: mimicking natural tissue," 3rd Tissue Engineering Conference, Rhode GREECE, 2008.
415. S. Sirivisoot*, R.A. Pareta, and T.J. Webster, "Controlled release of antibiotics from conductive polymers for improving bone implants," MRS International Materials Research Conference (IMRC) 2008, Chongqing, CHINA, 2008.
416. R.A. Pareta* and T.J. Webster, "Novel cell encapsulation through co-axial electrospinning: Mimicking the natural tissue," Society for Biomaterials Translational Meeting, Atlanta, GA, 2008.

417. H. Liu* and T.J. Webster, “A prolonged two phase peptide release achieved using aminophase silane chemistry functionalization and nanocrystalline hydroxyapatite in a degradable polymer composite,” Society for Biomaterials Translational Meeting, Atlanta, GA, 2008.
418. S. Puckett* and T.J. Webster, “Controlling osteoblast function on nanorough micron patterned titanium,” Society for Biomaterials Translational Meeting, Atlanta, GA, 2008.
419. T.J. Webster, “Fundamentals of Nanotechnology for Biomedical Applications,” Workshop at the 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
420. J. T. Seil*, D. Hoffman-Kim, and T. J. Webster, “Evaluation of neural cell activity on carbon nanotube and zinc oxide nanoparticle composites,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
421. Y. Chen* and T. J. Webster, “Self-assembling helical rosette nanotubes functionalized with bioactive BMP-7 short peptides for orthopedic applications,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
422. B. Ercan* and T.J. Webster, “Stem cell and osteoblast proliferation on carbon nanotubes and anodized titanium upon the application of electricity,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
423. S. Puckett* and T. J. Webster, “Nano rough micron patterned titanium for directing osteoblast morphology and adhesion,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
424. D. Khang*, J. Lu*, J. Carpenter*, and T.J. Webster, “Nano and submicron material dimensions for promoting vascular cell adhesion,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
425. Y. W. Chun*, D. Khang*, K. M. Haberstroh, M. Kaefer, and T.J. Webster, “Mechanisms of decreased calcium oxalate stone formation on submicron pored, nanometer rough polyurethane for bladder tissue applications,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
426. L. Yang*, T.J. Webster, and B.W. Sheldon, “Orthopedic nanocrystalline diamond coatings: Impact of surface properties on osteoblast adhesion and proliferation,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
427. J. Wang*, R. Pareta*, A. Burghouwt, and T.J. Webster, “Alginate hydrogel-penetrated textile scaffolds for articular cartilage regeneration,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
428. N. Tran*, R. Pareta*, and T.J. Webster, “Synthesis of magnetic nanoparticles for bone regeneration applications,” 34th Annual Northeast Bioengineering Conference, Providence, RI, 2008.
429. H. Liu* and T.J. Webster, “Improved mechanical properties of nanophase titania/PLGA (poly-lactide-co-glycolide) composites for orthopedic applications,” Biomedical Engineering Society Annual Meeting, St. Louis, MO, 2008.

430. H. Liu* and T.J. Webster, “Nanophase titania/PLGA (poly-lactide-co-glycolide) composites for orthopedic applications,” MS&T Sapphire and Gold Medal Award Presentation, MS&T, Pittsburgh, PA. 2008.
431. H. Liu* and T.J. Webster, “Drug delivery from nanophase titania/PLGA (poly-lactide-co-glycolide) composites for orthopedic applications,” NSTI, Boston, MA, 2008.
432. L. Zhang*, H. Fenirri, T.J. Webster, “Modified self-assembled helical rosette nanotubes in hydrogels for improved bone tissue engineering applications,” Materials Research Society, Boston, MA, 2008.
433. C. Yao* and T.J. Webster, “Drug delivering anodized nanotubular titanium surfaces,” Materials Research Society Annual Meeting, Boston, MA, 2008.
434. J. Lu*, D. Khang*, C. Yao, and T.J. Webster, “Increased vascular cell adhesion on titanium: The role of nano and sub-micron surface features,” Materials Research Society Annual Meeting, Boston, MA, 2008.
435. P. Tran*, L. Sarin, R. Hurt, and T.J. Webster, “Promising orthopedic materials for bone cancer patients,” Materials Research Society Meeting, Boston, MA, 2008.
436. H. Liu* and T.J. Webster, “Improved mechanical properties of nanophase titania/PLGA (poly-lactide-co-glycolide) composites for orthopedic applications,” Materials Research Society Meeting, Boston, MA, 2008.
437. J. T. Seil*, and T. J. Webster, “Evaluation of neural cell activity on carbon nanotube and zinc oxide nanoparticle composites,” Materials Research Society Meeting, Boston, MA, 2008.
438. M. Machado*, K. Tarquinio, and T.J. Webster, “Assessment of nanomodified endotracheal tubes in a bench top airway model,” American Institute of Chemical Engineers Annual Meeting, Nashville, TN, 2009.
439. P. Tran, L. Sarin, E. Taylor, R. Hurt, and T.J. Webster, “Selenium nanocluster coatings for anti-cancer, anti-bacterial biomaterial applications,” TERMIS’2009, Seoul, South Korea, 2009.
440. L. Yang*, Q. Li, V. Chinthapenta, B. W. Sheldon, and T.J. Webster, “The impact of substrate topography on mediating osteoblast functions: Why nanotopography can do better,” TERMIS’2009, Seoul, South Korea, 2009.
441. D. Khang, Y. W. Chun*, S.S. Kang, T.H. Nam, and T.J. Webster, “Carbon nanotubes for evasive immune responses,” TERMIS’2009, Seoul, South Korea, 2009.
442. T. Raimondo*, S. Puckett*, and T.J. Webster, “Greater osteoblast and endothelial cell adhesion on nanostructured polymers,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
443. M. Zile*, S. Puckett*, and T.J. Webster, “Functionalized nanotitanium for improving keratinocyte function,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
444. C. Hartman*, B. Ercan*, and T.J. Webster, “Osteoblast-fibroblast co-culture on nanotubular titanium with electrical stimulation for orthopedic applications,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
445. Y. Chun*, D. Khang*, and T.J. Webster, “Macrophage responses to hydrophobic and hydrophilic carbon nanotubes,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.

446. N. Nhiem*, R. Pareta, E. Taylor, and T.J. Webster, “Iron oxide magnetic nanoparticles: A promising treatment for osteoporosis and bacteria infection,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
447. S. Puckett*, P. Lee*, D. Ciombor, R. Aaron, and T.J. Webster, “Nanostructured materials for transcutaneous osseointegrated devices,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
448. J. Seil* and T.J. Webster, “Neural and glial cell interactions with a piezoelectric nanomaterial polymer composite,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
449. D. A. Stout*, L. Yang*, and T.J. Webster, “Impact of nanotopography on osteoblast spreading and filopodia extension on nanostructured diamond,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
450. L. Yang*, Q. Li, V. Chinthapenta, T.J. Webster, and B. Sheldon, “The role of substrate topography in mediating osteoblast functions: Experiments and modeling,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
451. P. Tran*, E. Taylor*, L. Sarin, R.H. Hurt, and T.J. Webster, “Creating anti-bacterial, anti-cancer orthopedic implants: The role of selenium nanocluster coatings,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
452. E. Taylor* and T.J. Webster, “Decreased bacteria and increased osteoblast functions with magnetic nanoparticles,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
453. Y. Chen*, B. Bilgen, H. Fenniri, D.M. Ciombor, R.K. Aaron, and T.J. Webster, “Self-assembled drug delivery nanotubes for orthopedic applications,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
454. J. Lu* and T.J. Webster, “Nano and microtechnology for improving vascular stents without the use of drugs,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
455. M. Machado*, T.J. Webster, and K. Tarquinio, “Assessment of nanomodified endotracheal tubes using nanotechnology in a bench top airway model,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
456. L. Zhang*, T.J. Webster, and Y. Chun*, “Decreased lung carcinoma cell function on polymer nanometer surface features for lung replacement therapies,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
457. B. Ercan* and T.J. Webster, “Anodized nanotubular titanium as an orthopedic implant and the effect of electrical stimulation,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
458. M. Machado* and T.J. Webster, “Nanomodified catheters for resisting bacteria infection,” 2nd International Conference on Drug Discovery and Therapy, Dubai, UAE, 2010.
459. J. Seil* and T.J. Webster, “Piezoelectric materials for resisting bacteria infection,” 2nd International Conference on Drug Discovery and Therapy, Dubai, UAE, 2010.
460. J. Seil* and T.J. Webster, “Nano ZnO for neural grafts,” 2nd International Conference on Drug Discovery and Therapy, Dubai, UAE, 2010.
461. L. Zhang* and T. J. Webster, “Decreased lung carcinoma cell function on select polymer nanometer surface features for lung replacement therapies”, Materials Research Society, Boston, MA, 2009.

462. P. Tran* and T. J. Webster, “Healthy versus cancerous osteoblast cell responses on selenium coated orthopedic implants”, Materials Research Society, Boston, MA, 2009.
463. L Yang* and T. J. Webster, “Nanodiamond as an improved orthopedic implant material”, Materials Research Society, Boston, MA, 2009.
464. J. Lu* and T. J. Webster, “Greater endothelialization of nanostructured vascular stents”, Materials Research Society, Boston, MA, 2009.
465. J. Seil* and T. J. Webster, “Nano nerve grafts”, Materials Research Society, Boston, MA, 2009.
466. Y. W. Chun* and T. J. Webster, “Decreased macrophage functions on select carbon nanotubes”, Materials Research Society, Boston, MA, 2009.
467. Y. Chen* and T. J. Webster, “Drug delivery using rosette nanotubes,” Materials Research Society, Boston, MA, 2009.
468. E. Taylor* and T. J. Webster, “Decreased bacteria infection using nanostructured magnetic particles”, Materials Research Society, Boston, MA, 2009.
469. D. Stout* and T. J. Webster, “Extended osteoblast filopodia extension on nanodiamond materials”, Materials Research Society, Boston, MA, 2009.
470. N. Tran* and T. J. Webster, “Magnetic nanoparticle films for antibacterial applications”, Materials Research Society, Boston, MA, 2009.
471. E. Taylor* and T.J. Webster, “Decreased bacteria attachment when using magnetic nanoparticles,” Society for Biomaterials, San Antonio, TX, 2009.
472. N. Tran* and T.J. Webster, “Osteoblast functions in the presence of magnetic nanoparticles,” Society for Biomaterials, San Antonio, TX, 2009.
473. P. Tran* and T.J. Webster, “Selenium nanoparticles for anti-bacterial applications,” Society for Biomaterials, San Antonio, TX, 2009.
474. J. Lu* and T.J. Webster, “Decreased macrophage functions on vascular stents with nanoscale roughness,” Society for Biomaterials, San Antonio, TX, 2009.
475. L. Yang* and T.J. Webster, “Modeling osteoblast functions on nanodiamond coatings,” Society for Biomaterials, San Antonio, TX, 2009.
476. Y. Chun* and T.J. Webster, “Designing carbon nanotubes to minimize interactions with macrophages,” Society for Biomaterials, San Antonio, TX, 2009.
477. B. Ercan* and T.J. Webster, “Greater osteoblast functions on electrically stimulated anodized titanium,” Society for Biomaterials, San Antonio, TX, 2009.
478. L. Zhang* and T.J. Webster, “Decreased cancerous cell functions on nanostructured PLGA,” Society for Biomaterials, San Antonio, TX, 2009.
479. S. Puckett* and T.J. Webster, “Decreased bacterial attachment on titanium with select nanofeatures,” Society for Biomaterials, San Antonio, TX, 2009.
480. M. Ahmed* and T.J. Webster, “Nanostructured coatings for entheses applications,” Annual Biomedical Engineering Society, Pittsburgh, PA, 2009.
481. J. T. Seil*, E. N. Taylor*, and T. J. Webster, “Antibacterial properties of sonicated piezoelectric zinc oxide nanoparticles,” Society for Biomaterials, Seattle, WA, 2010.
482. E. N. Taylor*, and T. J. Webster, “Functionalized magnetic nanoparticles for fighting bacteria,” Society for Biomaterials, Seattle, WA, 2010.

483. N. Tran*, and T. J. Webster, “Osteoblast functions in the presence of magnetic nanoparticles,” Society for Biomaterials, Seattle, WA, 2010.
484. P. Tran*, and T. J. Webster, “Nano selenium as a novel medical device,” Society for Biomaterials, Seattle, WA, 2010.
485. S. Sirinrath* and T. J. Webster, “Orthopedic biosensors based on nanotechnology,” Society for Biomaterials, Seattle, WA, 2010.
486. L. Yang * and T. J. Webster, “Osteoblasts on nanodiamond: Experimental and modeling results,” Society for Biomaterials, Seattle, WA, 2010.
487. B. Ercan*, and T. J. Webster, “Electrically stimulated bacteria on anodized titanium,” Society for Biomaterials, Seattle, WA, 2010.
488. Y. W. Chun* and T.J. Webster, “Mechanisms of decreased macrophage functions on carbon nanotubes,” Society for Biomaterials, Seattle, WA, 2010.
489. K. Tarquinio, N. Rubien, and T.J. Webster, “Nanostructured endotracheal tubes decreases bacteria attachment,” Society for Critical Care, Miami, FL, 2010.
490. L. Yang*, Q. Li, V. Chinthapenta, D. Stout, A. Liang, B.W. Sheldon and T.J. Webster, “Understanding osteoblast responses on nanostructured surfaces through modeling,” BIOINFO 2010, Cancun, MEXICO, 2010.
491. Keiko Tarquinio, Nathan Rubien, and T.J. Webster, “Nanostructured polymers for endotracheal tube applications,” EUROBIOFILMS, Rome, ITALY, 2009.
492. J. T. Seil* and T. J. Webster, “Zinc oxide nanoparticle composites for nerve graft applications,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
493. Y. Chen* and T. J. Webster, “Helical rosette nanotubes for orthopedic applications,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
494. B. Ercan* and T.J. Webster, “Electrical stimulation of osteoblasts on anodized titanium,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
495. S. Puckett* and T. J. Webster, “An in vivo assessment of nanostructured Ti for amputees,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
496. D. Cheng and T.J. Webster, “Nanostructured polymers for decreasing endotracheal tube infection,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
497. Y. W. Chun*, K. M. Haberstroh, and T.J. Webster, “Nanostructured polymers for urological applications,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
498. L. Yang*, B. W. Sheldon, and T.J. Webster, “Nanocrystalline diamond coatings: Experimental and modeling results,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
499. M. Ahemed and T.J. Webster, “Nanostructured surfaces for entheses regeneration,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
500. N. Tran* and T.J. Webster, “Magnetic nanoparticles for bone regeneration applications,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.

501. P. Tran* and T.J. Webster, “Nanoselenium for antibacterial applications,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
502. L. Zhang and T.J. Webster, “Decreased cancer cell attachment on select nanostructured polymers,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
503. M. Machado and T.J. Webster, “Development of endotracheal tube system,” 35^h Annual Northeast Bioengineering Conference, Harvard, MA, 2009.
504. T.J. Webster and L. Regalla, “Using PBS to enhance the classroom,” NAT conference, Dallas, TX, 2009.
505. N. Rubien*, K. Tarquinio, and T.J. Webster, “Inhibition of *Pseudomonas Aeruginosa* and *Staphylococcus Aureus* growth on nanorough polyvinyl chloride endotracheal tubes,” Rhode Island Research Alliance Symposium, Providence, RI, 2009.
506. S. Puckett and T.J. Webster, “Increased skin growth on nanostructured titanium,” Rhode Island Research Alliance Symposium, Providence, RI, 2009.
507. N. Rubien*, K. Tarquinio, and T.J. Webster, “Inhibition of *Pseudomonas Aeruginosa* and *Staphylococcus Aureus* growth on nanorough polyvinyl chloride endotracheal tubes,” Lifespan 17th Annual Research Celebration, Providence, RI, 2009.
508. L. Yang*, B. Sheldon, and T.J. Webster, “Osteoblast functions on nanocrystalline diamond modified by hydrogen, oxygen and ammonia plasmas” TERMIS, Orlando, FL, 2010.
509. L. Zhang* and T.J. Webster, “Decreasing cancer cell growth using polymer nanometer surface features” TERMIS, Orlando, FL, 2010.
510. M. Machado*, K. Tarquinio, and T.J. Webster, “Inhibited bacteria functions on nanorough endotracheal tubes,” Biomedical Engineering Society, Austin, TX, 2010.
511. J. Seil* and T.J. Webster, “Nanostructured zinc oxide polymer composites to reduce bacteria functions,” Biomedical Engineering Society, Austin, TX, 2010.
512. L. Yang*, B. Sheldon, and T.J. Webster, “Increased osteoblast functions on nanocrystalline diamond,” Biomedical Engineering Society, Austin, TX, 2010.
513. N. Tran* and T.J. Webster, “Magnetic nanoparticles for promoting bone cell functions,” Biomedical Engineering Society, Austin, TX, 2010.
514. G. Aninwene III*, G. Jay, and T.J. Webster, “Lubricin as an anti-adhesive medical device coating,” Biomedical Engineering Society, Austin, TX, 2010.
515. E. Taylor* and T.J. Webster, “Magnetic nanoparticles for decreasing biofilm formation,” Biomedical Engineering Society, Austin, TX, 2010.
516. L. Zhang* and T.J. Webster, “Decreasing cancer cell functions through nanotechnology,” Biomedical Engineering Society, Austin, TX, 2010.
517. L. Sun* and T.J. Webster, “Injectable self-assembled chemistries for orthopedic applications,” Biomedical Engineering Society, Austin, TX, 2010.
518. D. Stout* and T.J. Webster, “Carbon nanotubes for cardiac patch applications,” Biomedical Engineering Society, Austin, TX, 2010.
519. G. Aninwene*, G. Jay, and T.J. Webster, “Nanosurfaces as Improved Lubricants and Anti-bacteria Surfaces,” Materials Research Society Conference, Boston, MA, 2011.

520. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles for Decreasing Biofilm Formation,” Materials Research Society Conference, Boston, MA, 2011.
521. L. Zhang* and T.J. Webster, “Decreasing Cancer Cell Functions Through Nanotechnology,” Materials Research Society Conference, Boston, MA, 2011.
522. M. Machado and T.J. Webster, “Developing Anti-bacteria Nanostructured Endotracheal Tubes,” Materials Research Society Conference, Boston, MA, 2011.
523. L. Sun* and T.J. Webster, “Injectable Self-Assembled Chemistries for Orthopedic Applications,” Materials Research Society Conference, Boston, MA, 2011.
524. D. Stout* and T.J. Webster, “Carbon Nanotubes for Cardiac Patch Applications”, Materials Research Society Conference, Boston, MA, 2011.
525. D. Stout* and T.J. Webster, “Improved Cardiomyocyte Functions on Carbon Nanotubes”, American Institute of Chemical Engineers Conference, 2011.
526. M. Machado and T.J. Webster, “Modeling To Explain Anti-bacteria Nanostructured Endotracheal Tubes,” American Institute of Chemical Engineers Conference, 2011.
527. G. Aninwene*, G. Jay, and T.J. Webster, “Nanosurfaces as Improved Lubricants and Anti-bacteria Surfaces,” 36^h Annual Northeast Bioengineering Conference, RPI, Troy, NY, 2011.
528. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles for Decreasing Biofilm Formation,” 36^h Annual Northeast Bioengineering Conference, RPI, Troy, NY, 2011.
529. L. Zhang* and T.J. Webster, “Decreasing Cancer Cell Functions Through Nanotechnology,” 36^h Annual Northeast Bioengineering Conference, RPI, Troy, NY, 2011.
530. M. Machado and T.J. Webster, “Developing Anti-bacteria Nanostructured Endotracheal Tubes,” 36^h Annual Northeast Bioengineering Conference, RPI, Troy, NY, 2011.
531. L. Sun* and T.J. Webster, “Injectable Self-Assembled Chemistries for Orthopedic Applications,” 36^h Annual Northeast Bioengineering Conference, RPI, Troy, NY , 2011.
532. L. Sun* and T.J. Webster, “Nanotechnology for Medical Devices,” MS&T Conference, Columbus, OH, 2011.
533. D. Stout* and T.J. Webster, “Carbon Nanotubes as the Next Generation Medical Device,” IEEE NanoBio Conference, Jeju, South Korea, 2011.
534. G. Aninwene*, G. Jay, and T.J. Webster, “Nanosurfaces as Improved Lubricants and Anti-bacteria Surfaces,” Materials Research Society Conference, Boston, MA, 2011.
535. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles for Decreasing Biofilm Formation,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
536. L. Zhang* and T.J. Webster, “Decreasing Cancer Cell Functions Through Nanotechnology,” Biomedical Engineering Society Conference, Hartford, CT, 2011.

537. G. Aninwene*, G. Jay, and T.J. Webster, “Nanosurfaces as Improved Lubricants and Anti-bacteria Surfaces,” Society For Biomaterials Conference, Orlando, FL, 2011.
538. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles for Decreasing Biofilm Formation,” Society For Biomaterials Conference, Orlando, FL, 2011.
539. L. Zhang* and T.J. Webster, “Decreasing Cancer Cell Functions Through Nanotechnology,” Society For Biomaterials Conference, Orlando, FL, 2011.
540. M. Machado and T.J. Webster, “Developing Anti-bacteria Nanostructured Endotracheal Tubes,” Society For Biomaterials Conference, Orlando, FL, 2011.
541. L. Sun* and T.J. Webster, “Injectable Self-Assembled Chemistries for Orthopedic Applications,” Society For Biomaterials Conference, Orlando, FL, 2011.
542. D. Stout* and T.J. Webster, “Carbon Nanotubes for Cardiac Patch Applications”, Society For Biomaterials Conference, Orlando, FL, 2011..
543. M. Machado and T.J. Webster, “Developing Anti-bacteria Nanostructured Endotracheal Tubes,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
544. L. Sun* and T.J. Webster, “Injectable Self-Assembled Chemistries for Orthopedic Applications,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
545. D. Stout* and T.J. Webster, “Carbon Nanotubes for Cardiac Patch Applications”, Biomedical Engineering Society Conference, Hartford, CT, 2011.
546. L. Yang*, B. Sheldon, T.J. Webster, “Understanding Osteoblast Responses on Nanocrystalline Diamond,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
547. D. Hoff* and T.J. Webster, “Iron Oxide Nanoparticles Passing Through the Blood Brain Barrier,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
548. D. Hall*, E. Taylor*, and T.J. Webster, “Iron Oxide Nanoparticles That Kill Bacteria,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
549. T. Tseng* and T.J. Webster, “Lubricin and Its Antibacterial Properties,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
550. K. Leuban* and T.J. Webster, “Functionalizing Magnetic Nanoparticles”, Biomedical Engineering Society Conference, Hartford, CT, 2011.
551. X. Meng* and T.J. Webster, “Injectable Cardiac Healing Materials,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
552. A. Santiago* and T.J. Webster, “Altered PLGA for Cardiac Applications,” Leadership Alliance Conference, New Haven. CT, 2011.
553. A. Santiago* and T.J. Webster, “Altered PLGA for Cardiac Applications,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
554. E. Smith*, K. Tarquinio*, and T.J. Webster, “Decreased Bacteria Functions on Flat Nanostructured Polymers,” Biomedical Engineering Society Conference, Hartford, CT, 2011.
555. L. Zhang* and T.J. Webster, “Decreased Breast Cancer Cell Functions on Nanostructured Polymers,” Materials Research Society Spring Conference, San Francisco, CA, 2011.
556. E. Taylor* and T.J. Webster, “Nanoparticles for Killing Bacteria,” VA Seminar Series, Providence, RI, 2011.

557. J. Seil* and T.J. Webster, “Nanotechnology in Regenerative Medicine,” IMNI RIICE Poster Session, Providence, RI, 2011.
558. T.J. Webster, “Controlling Bacteria Functions on Nanomaterials,” Bacteria Conference, Stevens Institute of Technology, Hooboken, NJ, 2011.
559. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles to Kill Bacteria and Penetrate Biofilms,” Bacteria Conference, Stevens Institute of Technology, Hooboken, NJ, 2011.
560. G. Aninwene*, G. Jay, and T.J. Webster, “Mucin and Vitronectin Coated Medical Devices Decreases Bacteria Infaction,” World Biomaterials Congress, Chengdu, CHINA, 2012.
561. M. Machado* and T.J. Webster, “Understanding Decreased Bacteria Functions on Nanostructured Polymers,” World Biomaterials Congress, Chengdu, CHINA, 2012.
562. E. Taylor* and T.J. Webster, “Magnetic Nanoparticles for Bacteria Separation,” World Biomaterials Congress, Chengdu, CHINA, 2012.
563. D. Stout* and T.J. Webster, “Altering Polymer Density with Carbon Nanofibers for Cardiac Patch Applications,” World Biomaterials Congress, Chengdu, CHINA, 2012.
564. Q. Wang* and T.J. Webster, “Decreased Bacteria Functions on Selenium Coated Implants,” World Biomaterials Congress, Chengdu, CHINA, 2012.
565. Y. Wang* and T.J. Webster, “Decreasing Bone Cancer Cell Functions on Nanostructured Polymers Without Chemotherapeutics,” World Biomaterials Congress, Chengdu, CHINA, 2012.
565. L. Sun* and T.J. Webster, “Injectable Self-Assembled Materials for Cartilage Growth,” World Biomaterials Congress, Chengdu, CHINA, 2012.
566. L. Zhang* and T.J. Webster, “Polymer Nanostructures and Chitosan for Decreasing Breast Cancer,” World Biomaterials Congress, Chengdu, CHINA, 2012.
567. X. Meng* and T.J. Webster, “Nanostructured Self-Assembled Materials for Cardiac Applications,” World Biomaterials Congress, Chengdu, CHINA, 2012.

+75 additional conference presentations available upon request.

INVITED PRESENTATIONS

Internal

1. T. J. Webster, "Osteoblast adhesion on nanophase alumina," presented in Biomaterials (course BMED4550) Special Seminar at Rensselaer Polytechnic Institute, 1997.
2. T. J. Webster, "Nanophase ceramics and their future in orthopaedic/dental applications," presented in Nanostructured Materials (course MTLE6960) Special Seminar at Rensselaer Polytechnic Institute, 1998 and 1999.
3. T. J. Webster (speaker), "Improved efficacy of orthopaedic/dental implants through the use of nanophase ceramics," presented at the BME Student Seminar Series, IUPUI, Indianapolis, IN, 2000.
4. T. J. Webster, "Enhanced cell interactions on nanostructured surfaces," presented at the IGERT seminar, Purdue University, IN, 2001.
5. T. J. Webster, "Cell attachment on materials with anisotropic polymer and carbon nanofiber alignment," presented at the Purdue University Materials Consortium Workshop, Purdue University, West Lafayette, IN, 2001.
6. T. J. Webster, "Engineering smart nanostructured biomaterials for control of select cell functions," presented at the Purdue University Chemistry Department Materials Consortium Workshop, Purdue University, West Lafayette, IN, 2002.
7. T.J. Webster, "Bio-nanotechnology: Implications for designing more effective tissue engineering materials," presented at the Nanotechnology Seminar Series, Purdue University, 2003.
8. T. J. Webster, "Neural implants composed of carbon nanotubes," presented at the IGERT seminar, Purdue University, IN, 2003.
9. T.J. Webster, "Increased capture of mammalian and bacteria cells," presented at the Food Sciences Industrial Associates Meeting, Purdue University, 2004.
10. T.J. Webster, "Nanotechnology for the creation of better tissue engineering materials," Linking Bio and Nano, Purdue, UIUC, Northwestern University, Purdue University, 2004.
11. T.J. Webster, "Nano-structured wound healing materials," DuPont Research Exploration, Purdue University, 2004.
12. T.J. Webster, "Nanomaterials for tissue engineering," Showcase of Nanomedicine, Brown University, 2006.
13. T.J. Webster, "Nanomedicine for treating organ failure," Small Wonders Course, Brown University, 2006.
14. T.J. Webster, "Nanotechnology: where are we now and where are going," Tissue Engineering Course, Brown University, 2006.
15. T.J. Webster, "Nanomedicine," Nanoparticles Course, Brown University, 2006.
16. T.J. Webster, "Nanotechnology for bone tissue engineering," Division of Orthopaedic Research Seminar Series, Brown Medical School, 2006.
17. T.J. Webster, "Translational research in nanotechnology," Nanotechnology Small Forum, Providence, RI, 2007.
18. T.J. Webster, "Nanomedicine at Brown University," Molecular Medicine, Brown University, 2007.
19. T.J. Webster, "Nanotechnology for treating organ failure," Pathobiology seminar series, Brown University, 2007.

20. T.J. Webster, "Prospects in nanomedicine," Course EN 004, Brown University, 2007.
21. T.J. Webster, "Nanotechnology for treating organ failure," NSF GK-12 program, 2007.
22. T.J. Webster, "Nanotechnology for treating organ failure," Brown Summer School, 2007.
23. T.J. Webster, "Nanotechnology for improving tissue engineering," Brown Staff Day, 2007.
24. T.J. Webster, "Inorganic nanomaterials for treating organ failure," Inorganic Chemistry Seminar Series, Brown, 2007.
25. T.J. Webster, "Ground breaking ceremony for the Institute for Molecular and Nanoscale Innovation," Brown, 2008.
26. T.J. Webster, "The future of nanotechnology," Course EN 002, Brown University, 2008.
27. T.J. Webster, "Research trends in physical sciences," UTRA Research Thursday, Brown University, 2008.
28. T.J. Webster, "Sensors for determine bone growth," Department of Orthopedics COBRE presentation, 2008.
29. T.J. Webster, "The use of nanotechnology for improving tissue growth," Engineering DUG, Brown, 2008.
30. T.J. Webster, "Improving study skills to survive in college," MRSEC Motivating Girls to Study Science, Brown, 2008.
31. T.J. Webster, "Nanostructured Ti for various implant applications," Medtronic Site Visit, MRSEC, Brown, 2009.
32. T.J. Webster, "Orthopedic biosensors," COBRE Seminar Series, Department of Orthopaedics, Rhode Island Hospital, 2009.
33. T.J. Webster, "Using nanotechnology to create in-situ sensors," COBRE Site Visit, Rhode Island Hospital, 2009.
34. T.J. Webster, "Nanotechnology for Orthopedics," Department of Orthopedics Seminar Series, 2009.
35. T.J. Webster, "Implant, Implants, Everywhere," Brown University Family Day, Providence, RI, 2009.
36. T.J. Webster, "Promoting peer-peer learning," Science Resource Center, Brown University, Providence, RI, 2009.
37. T.J. Webster, "Selenium as a commercial material," PRIME program lectures, Brown, Providence, RI, 2009.
38. T.J. Webster, "Nanotechnology for critical care," Division of Surgery, Brown University Medical School, Providence, RI, 2009.
39. T.J. Webster, "Reducing infection through nanomaterials," guest lecture for Dr. Jay's course, Brown University. Providence, RI, 2010.
40. T.J. Webster, "Nanotechnology to improve Johnson and Johnson products," Brown University, Providence, RI, 2011.
41. T.J. Webster, "Nanostructured titanium for medical devices," Medtronic Site Visit, Brown University, Providence, RI, 2011.
42. T.J. Webster, "How to make a poster outstanding," Leader Alliance, Brown University, Providence, RI, 2011.

43. T.J. Webster, “Giving outstanding talks”, STEM Day, Science Center, Brown University, Providence, RI, 2011.
44. T.J. Webster, “Control of inflammation through nanotechnology,” guest lecture for Dr. Jay’s course, Brown University, Providence, RI, 2011.
45. T.J. Webster, “Reducing infection through nanomaterials,” guest lecture for Dr. Jay’s course, Brown University. Providence, RI, 2012.

+9 additional presentations available upon request.

External

1. T. J. Webster (speaker), R.W. Siegel, and R. Bizios “Design and evaluation of nanophase ceramics for orthopaedic/dental implant applications,” presented at the Engineering Foundation Conference : Nanocomposite Materials: Design and Application, Anchorage, Alaska, 1999.
2. T. J. Webster (speaker), R. W. Siegel, and R. Bizios, “Design, synthesis, and evaluation of nanophase ceramics that simulate the grain size of physiological bone,” presented at NASA NanoSpace 2000: Advancing the Human Frontier, Biomimetic and Bioactive/Smart Materials Symposium, Houston, Texas, 2000.
3. T. J. Webster (speaker), R. W. Siegel, and R. Bizios, “Design and evaluation of nanophase ceramics for orthopaedic/dental implant applications,” presented at the Nanophase Materials Seminar Series, University of Washington, Seattle, WA, 2000.
4. T. J. Webster (speaker), R. W. Siegel, and R. Bizios, “Nanophase ceramics as the future orthopaedic/dental implant material,” presented at the 5th International Conference on Nanostructured Materials, Sendai, Japan, 2000.
5. T. J. Webster (speaker), “Nanophase ceramics as regenerative bone prostheses,” presented at the 20th Annual Meeting of the Society for Physical Regulation in Biology and Medicine, Charleston, SC, 2001.
6. T. J. Webster, R.W. Siegel (speaker), and R. Bizios, “Osteoblast behavior on nanophase ceramics,” presented at the 7th CCT in Faenza, Italy, 2001.
7. T. J. Webster, “Cell responses to nanostructured ceramics and polymers,” presented at the IEEE/EMBS Special Topic Conference on Molecular, Cellular, and Tissue Engineering, Genoa, Italy, 2002.
8. T. J. Webster, “Improved protein and cellular interactions on nanostructured surfaces,” presented at the Nanotech and Biotech Convergence 2002 Conference, Stamford, CT, 2002.
9. T.J. Webster, “Increased efficacy of bone and cartilage prostheses through the use of nanostructured composites,” presented at the Ninth International Conference on Composites Engineering, San Diego, CA, 2002.
10. T.J. Webster, “Cell behaviors on nanostructured surfaces,” presented at Thermec’2003, Madrid, Spain, 2003.
11. T.J. Webster, “How to engineering better orthopedic materials,” presented at Spire Biomedical Inc., Boston, MA, 2002.
12. T.J. Webster, “The importance of nanophase ceramics in bone implants,” presented at Angstrom Medica, Boston, MA, 2002.

13. T.J. Webster, “A collection of *in vitro* studies evaluating the efficacy of orthopedic materials that simulate the grain nanometer fiber dimension of bone,” presented for the Rita Schaffer Young Investigator Award, Biomedical Engineering Society, Houston, TX, 2002.
14. T.J. Webster, “Altered cell behaviors of nanostructured materials,” presented at the McGowan Institute for Regenerative Medicine, University of Pittsburgh, 2003.
15. T.J. Webster, “Bio-nanotechnology: Designing more effective hard tissue engineering materials,” presented at DePuy Orthopedics, Warsaw, IN, 2003.
16. T.J. Webster, “Carbon nanofibers in biological applications,” presented at West Virginia University, Morgantown, WV, 2003.
17. T.J. Webster, “Nanotechnology for more efficient bone biomaterials,” presented at the Program of Comparative Medicine, Spring Retreat, Turkey Run State Park, IN, 2003.
18. T.J. Webster, “Nanoparticulate metals: promising biocompatible materials for orthopedic applications,” presented at the Nanoparticles 2003 Conference, Boston, MA, 2003.
19. T.J. Webster, “Nanotechnology and tissue engineering: Better bone implants ?” presented as a Plenary Talk, 133rd TMS Annual Meeting & Exhibition, Charlotte, North Carolina, 2004.
20. T.J. Webster, “Nanotechnology for Bone and Titanium Integration,” presented as a keynote speaker at the International Association for Dental Research (IADR) conference, Hawaii, 2004.
21. T.J. Webster, “The use of nanotechnology for better tissue engineering materials,” presented at the University of Texas at San Antonio, San Antonio, TX, 2004.
22. T.J. Webster, “Nanobiotechnology: The use of nanophase materials for better bone tissue engineering materials,” presented at the Indiana University School of Dentistry, Indianapolis, IN, 2004.
23. T.J. Webster, “Nanotechnology for the creation of more bone for implant sites,” presented at the Indiana University School of Dentistry John Johnston Conference on Bone Reconstruction, Indianapolis, IN, 2004.
24. T.J. Webster, “Tutorial: Cell and protein interactions with nanophase materials,” presented at the NSTI (Nano Science and Technology Institute), Boston, MA, 2004.
25. V. Perla (speaker) and T.J. Webster, “Nanoparticulate selenium: A new choice biocompatible orthopedic implant material” presented at Particles 2004, Orlando, FL, 2004.
26. T.J. Webster, “Increased bone tissue regeneration on three-dimensional polymer scaffolds containing nanophase ceramics,” presented at the American Chemical Society, Anaheim, CA, 2004.
27. J.L. McKenzie*, R. Shi, T.J. Webster, “Carbon nanofibers as the next generation of neural implant material,” presented at the ASM Biomedical Materials, Minneapolis, MN, 2004.
28. T. J. Webster, “Nanomaterials for more efficient regeneration of tissue,” to be presented at the University of Wisconsin, Madison, WS, 2005.

29. T.J. Webster, “Bio-nanostructured materials,” presented at Drexel University, Philadelphia, PA, 2004.
30. H. Liu*, E.B. Slamovich, T.J. Webster, “Increased new bone synthesis on nanophase ceramic polymer composites,” presented at the ASME International Mechanical Engineering Congress, Anaheim, CA, 2004.
31. T.J. Webster, “How to design more efficient orthopedic implants using nanotechnology,” presented at Stryker Howmedica, Mahwah, NJ, 2004.
32. T.J. Webster, “Nanotechnology for the creation of better tissue engineering materials,” presented at Sofamor Danek Orthopedics, Memphis, TN, 2004.
33. T.J. Webster, “Cell and protein interactions with nanostructured materials,” presented at the University of Alberta, Edmonton, Alberta, CA, 2004.
34. T.J. Webster, “Nano-composites for bone applications,” presented at the Composites at Lake Louise Conference Series, Lake Louise, Alberta, CA, 2005.
35. T.J. Webster, “Nanotechnology for biomedical applications,” presented to the Purdue Alumni Club, St. Joseph, MI, 2005.
36. T.J. Webster, “Understanding cell responses to nanophase materials,” presented to Medtronic, Minneapolis, MN, 2004.
37. T.J. Webster, “Bio-nanotechnology for tissue engineering,” presented at Clemson University, Clemson, SC, 2004.
38. T.J. Webster, “Nanomedicine: Nonclinical and Clinical Implications,” presented as a keynote speaker at the FDA Advancing Public Health Through Innovative Science, Rockville, MD, 2005.
39. T.J. Webster, “Nanoparticle drug carriers,” presented at Eli Lilly, Indianapolis, IN, 2005.
40. T.J. Webster, “Nanophase materials for orthopedics: A tutorial,” presented at the NSTI conference, Davos, Switzerland, 2005.
41. T.J. Webster, “Carbon based nanomaterials for biological applications,” presented as a keynote speaker at the CARBON 2005 conference, Seoul, South Korea, 2005.
42. T.J. Webster, “Nanotechnology to increase tissue regeneration,” presented at Nanosys, Palo Alto, CA, 2005.
43. T.J. Webster, “Nanostructured polymers for tissue regeneration,” presented at the University of Washington Nanotechnology Seminar Series, Seattle, WA, 2005.
44. T.J. Webster, “Tutorial: Bio nano materials”, presented at the NSTI Nanotech 2005, Anaheim, CA, 2005.
45. T.J. Webster, “Nanomaterials and biology,” presented at Drexel University, 2005.
46. T.J. Webster, “Tutorial: The use of nanotechnology in medicine,” presented at the ASME Education Session, Anaheim, CA, 2005.
47. T.J. Webster, “Nanostructured ceramics for bone regeneration,” presented as a keynote speaker at the Annual ACerS Meetings, Baltimore, MD, 2005.
48. T.J. Webster, “Carbon nanotubes in biomedical applications,” presented at the Seoul National University, Seoul, South Korea, 2005.
49. T.J. Webster, “Carbon nanotubes in biomedical applications,” presented at Yonsei University, Seoul, South Korea, 2005.

50. T.J. Webster, “Nanotechnology to benefit tissue engineering,” presented in Bionanotechnology II: Plenary and Tutorial Session of the AIChE Annual Meeting, Cincinnati, OH, 2005.
51. T.J. Webster, “Nanotechnology for the development of functional integration of self-supporting tissues,” DARPA Roundtable on Functional Integration of Self-Supporting Tissues, Arlington, VA, 2005.
52. T.J. Webster, “Nanotechnology for developing better orthopedic implants,” presented at Smith and Nephew, Memphis, TN, 2005.
53. T.J. Webster, “Better bone growth on nanophase materials,” presented at Ethicon (part of Johnson and Johnson), Mahwah, NJ, 2005.
54. T.J. Webster, “Biomaterials and nanotechnology,” Tutorial given at NSTI, Arlington, VA, 2005.
55. T.J. Webster, “Nanotechnology for tissue regeneration,” Tutorial given to International Congress of Nanotechnology, San Francisco, CA, 2005.
56. T.J. Webster, “Better tissue engineering through the use of nanotechnology,” presented as a keynote lecture at the Biomedical Applications of Nano Technologies, CIMTEC, Sicily, Italy, 2006.
57. T.J. Webster, “Bionanotechnology for tissue engineering,” presented at the THERMEC’2006 Conference, Vancouver, Canada, 2006.
58. T.J. Webster, “Tissue engineering,” Discussion Leader presented at the Gordon Conference on Biomineralization,: Group Session Leader, New London, NH, 2006.
59. C. Chang*, T.J. Webster, H. Rack, “Cell formation enhancement on Ti-based orthopedic implant based materials,” presented at the annual TMS meeting, San Antonio, TX, 2006.
60. G. Balasundaram and T. J. Webster, “Biodegradable nano ceramics functionalized with peptides for the treatment of osteoporosis,” presented at ICCE-14, Boulder, CO, 2006.
61. T.J. Webster, “Nanotechnology for treating organ disorders,” presented at MIT, Boston, MA, 2006.
62. T.J. Webster, “Bionanotechnology for improving tissue engineering,” presented at the University of Florida, Gainesville, FL, 2006.
63. T.J. Webster, “Nanomedicine for increasing tissue growth,” presented at the Advances in Biomaterial Processing, MS&T 2006, Cincinnati, OH, 2006.
64. H. Liu* and T.J. Webster, “Ceramic/polymer nanocomposites for orthopedic applications,” presented at the Nanocomposites -Their Science, Technology and Applications, MS&T 2006, Cincinnati, OH, 2006.
65. T.J. Webster, “Nanotechnology for treating damaged organs: A collection of in vivo studies,” presented at the e-MRS, Warsaw, Poland, 2006.
66. T.J. Webster, “Bionanotechnology for tissue regeneration,” Tutorial given to International Congress of Nanotechnology, San Francisco, CA, 2006 (Spring).
67. T.J. Webster, “The role nanotechnology can play in treating organ failure,” presented at the Kodak, Rochester, NY, 2006.
68. T.J. Webster, “Nanotechnology for biomedical applications,” presented at the European Science Foundation Tutorial, Stockholm, Sweden, 2006.

69. T.J. Webster, “Nanotechnology for cardiovascular and neural applications,” presented at the 2nd Annual American Association of Nanomedicine, Washington, D.C., 2006.
70. T.J. Webster, “Nanomedicine for promoting organ replacement,” presented at the American Chemical Society, San Francisco, CA 2006.
71. T.J. Webster, “Nanomedicine for treating failing organs,” presented at the Third Annual Minnesota Biomedical Nanotechnology Workshop, Keynote Talk, University of Minnesota, Minneapolis, MN, 2006.
72. T.J. Webster, “Tutorial: Nanomedicine”, presented at the NSTI Nanotech 2006, Boston, MA, 2006.
73. T.J. Webster, “Bionanotechnology for tissue regeneration,” Tutorial given to International Congress of Nanotechnology, San Francisco, CA, 2006 (Fall).
74. T.J. Webster, “Nanomedicine for organ replacement,” presented at the University of South Florida, Tampa, FL, 2006.
75. T.J. Webster, “Overview: Bio materials and tissues,” presented at the NSTI Nanotech 2006, Boston, MA, 2006.
76. T.J. Webster, “Nanotechnology for repairing tissues,” keynote presentation at International Conference on the Design of Biomaterials, BIND-06, IIT Kanpur, Kanpur, India, 2006.
77. T.J. Webster, “Nanotechnology for healing diseased tissue,” keynote presentation at the Seventh Annual Alberta Biomedical Engineering Conference, Banff, Alberta, Canada, 2006.
78. T.J. Webster, “Tutorial: Nanomedicine, from basics to applications,” Biomedical Engineering Society, Chicago, IL, 2006.
79. T.J. Webster, “Panel discussion: Where have we been and where are we going - Traditional approaches versus Nanotechnologies,” presented at the Society for Biomaterials Annual Meeting, Chicago, IL, 2007.
80. T.J. Webster, “Translational research in nanomedicine,” presented at the Society for Biomaterials Annual Meeting, Chicago, IL, 2007.
81. T.J. Webster, “Nanotechnology for biomedical applications,” presented at the European Science Foundation Tutorial, Davos, Switzerland, 2007.
82. T.J. Webster, “Nanotechnology for treating organ failure,” presented at the University of Massachusetts, Dartmouth, MA, 2007.
83. T.J. Webster, “Nanoparticle drug carriers,” presented at Eli Lilly, Indianapolis, IN, 2007.
84. T.J. Webster, “The next generation of tissue engineering,” presented at SASTRA, Chennai, India, 2007.
85. T.J. Webster, “Tutorial: Nanomedicine”, presented at the NSTI Nanotech 2007, Anaheim, CA, 2007.
86. T.J. Webster, “Nanotechnology and fracture repair,” presented at the Fracture Repair: Challenges and Opportunities American Academy of Orthopaedic Surgeons Research Symposium, Miami, 2007.
87. T.J. Webster, “Drug delivery from nanomaterials,” presented at the Symposium on Drug Delivery, SINGAPORE, 2007.

88. T.J. Webster, “Carbon nanotubes for healing damaged neural tissue,” presented at the International Research Symposium, Yonsei University, Seoul, South Korea, 2007.
89. H. Liu* and T.J. Webster, “Nanostructured printed scaffolds for bone tissue engineering,” presented at the Bioengineering Conference, University of Massachusetts, Lowell, MA, 2007.
90. T.J. Webster, “Tutorial: Biomaterials and nanotechnology,” Video-teleconferenced course to Islamabad, PAKISTAN, 2007.
91. T.J. Webster, “Nanotechnology for improving dental implants,” presented at the World Dental Congress, Lake Louise, Alberta, CANADA, 2007.
92. T.J. Webster, “Nanotechnology for treating organ damage,” Northwestern University Seminar Series, Chicago, IL, 2007.
93. T.J. Webster, “Cartilage and bone tissue engineering: Implications of Nanotechnology,” International Workshop on Nanoceramics and Nanocomposites, IIT Kanpur, India, 2007.
94. R. Pareta* and T.J. Webster, “Nanotechnology for improving the regeneration of tissues,” ISOPE, Lisbon, Portugal, 2007.
95. R. Pareta* and T.J. Webster, “Nanotechnology and treating organ failure: A perfect match?”, American Academy of Nanomedicine, San Diego, CA, 2007.
96. T.J. Webster, “Lessons from nanotechnology,” California Institute of Nanotechnology, San Francisco, CA, 2007.
97. T.J. Webster, “Nanotechnology for biomedical applications,” Northeastern University Distinguished Lecture Series on Nanotechnology, Northeastern University, Boston, MA, 2007.
98. T.J. Webster, “Cancer nanotechnology,” Boston Science Museum Forum on Nanomedicine: Health and Future Potentials, Boston, MA, 2007.
99. T.J. Webster, “Hand-on nanomedicine demonstrations,” Boston Science Museum Nanotech Symposium for Educators, Boston, MA, 2007.
100. T.J. Webster, “Current Science & Technology Center,” Boston Science Museum, Boston, MA, 2007.
111. T.J. Webster, “Next generation nanomaterials for organ replacement,” NanoBioNexus, San Diego, CA, 2007.
112. T.J. Webster, “Nanotechnology for implantable devices,” Nanotechnology Solutions for Long-term Implantable Devices, Integrated Research Team, Houston, TX, 2007.
113. T.J. Webster (speaker), D. Khang*, and J. Lee, “Faster return of motor function to stroke-induced rats using carbon nanotubes and stem cells,” BMES Annual Meeting, Los Angeles, CA, 2007.
114. T.J. Webster, “Nanotechnology for treating organ damage,” Acta Materialia Gold Symposium, Warsaw, POLAND, 2007.
115. T.J. Webster, “Design of nanomaterials for regenerating tissues,” TMS, Detroit, MI, 2007.
116. T.J. Webster, “Tutorial: Nanotechnology and medicine,” IANano, San Francisco, CA, 2007.
117. T.J. Webster, “Nanomedicine for implants,” Cleveland Clinic, Cleveland, OH, 2007.

118. T.J. Webster, “Nanotechnology for regenerating tissues: Is it hype or reality,” presented at the Smart Coatings Symposium, American Ceramic Society, Orlando, FL, 2008.
119. T.J. Webster, “Perspectives on nanomedicine,” NanoSmat, Barcelona, SPAIN, 2008.
120. T.J. Webster, “Nanostructured stents,” Ethicon, a Johnson and Johnson Company, NJ, 2008.
121. T.J. Webster, “Nanotechnology for implants,” National Science Foundation (NSF) Workshop on Grand Challenges for Bio-Nano Integrated Manufacturing for the Year 2020, Arlington, VA, 2008
122. T.J. Webster, “The next steps for nanomedicine,” Case Western Reserve University, Cleveland, OH, 2008.
123. T.J. Webster, “Nanoceramics as better tissue engineering materials,” American Ceramic Society Conference, Daytona Beach, FL, 2008.
124. T.J. Webster, “Bionanotechnology,” NSTI Nanotech 2008, Boston, MA, 2008.
125. T.J. Webster, “Nanotechnology and disease control,” presented at THERMEC’09, Berlin, GERMANY, 2009.
126. T.J. Webster, “Nanomedicine and implantology,” University of Rhode Island, RI, 2007.
127. T.J. Webster, “Helical rosette nanotubes and cartilage growth,” Acologix, San Francisco, CA, 2007.
128. T.J. Webster, “Anodization and improved orthopedic implants,” Stryker-Howmedica, Mahwah, NJ, 2007.
129. T.J. Webster, “Nanostructured materials for soft tissue applications,” presented to Atrium, Providence, RI, 2007.
130. T.J. Webster, “Wonders of the skeleton,” Nayatt School Science Fair, Barrington, RI, 2008.
131. T.J. Webster, “Nanotechnology for Tissue Engineering: A Collection of in vivo Studies,” TERMIS, San Diego, CA, 2008.
132. T.J. Webster, “Nanotechnology for regenerative medicine: Hype or Reality”, University of Birmingham, Birmingham, ENGLAND, 2008.
133. T.J. Webster, “Nanotechnology for regenerative medicine: Hyper of Reality”, Queen Mary College, London, ENGLAND, 2008.
134. T.J. Webster, “The future of nanotechnology in medicine,” Washington State University, Pullman, WA, 2008.
135. T.J. Webster, “The current status of nanomedicine,” to be presented at the Chinese Academy of Sciences, Beijing, CHINA, 2009.
136. T.J. Webster, “Nanotechnology for regenerative medicine,” International Conference on Nanotechnology, Soha, DUBAI, 2008.
137. T.J. Webster, “Healing stroke through carbon nanotubes,” to be presented at Yonsei University, Seoul, SOUTH KOREA, 2009.
138. T.J. Webster, “Nanotechnology for regenerative medicine,” American Institute of Chemical Engineerings, Philadelphia, PA, 2008.
139. T.J. Webster, “The fundamentals of nanotechnology for medicine,” NSTI, Houston, TX, 2009.

140. T.J. Webster, "Tutorial: Nanotechnology and medicine," IANano, San Francisco, CA, 2008.
141. T.J. Webster, "Perspectives on using nanotechnology for medicine," International Conference on Nanomedicine, St. Thomas, VI, 2009.
142. T.J. Webster, "Helical rosette nanotubes for injectable tissue growth applications," University of Alberta, Edmonton, CANADA, 2008.
143. T.J. Webster, "Nanomaterials for building a Center on Translational Research," University of Alberta, Edmonton, CANADA, 2008.
144. T.J. Webster, "Nanotechnology for tissue growth," keynote lecture to be presented at the Lake Louise Advanced Materials Conference, Alberta, CANADA, 2007.
145. T.J. Webster, "Bone morphogenetic proteins for nanotechnology-based orthopedic implants," International BMP Conference, Lake Tahoe, NV, 2008.
146. T.J. Webster, "Improving urological materials through nanotechnology," NIH NIDDK Forward Thinking Meeting, Boston, MA, 2008.
147. T.J. Webster, "Qualities of a leader," Biomedical Engineering Society Annual Meeting, St. Louis, MO, 2008.
148. T.J. Webster, "Keynote lecture: Nanotechnology for regenerating tissues: Hype or reality," Nanotechnology Day, Biomaterials Research Center, Goteborg, SWEDEN, 2008.
149. T.J. Webster, "Inhibiting infection on orthopedic implants," Stryker Orthopedics, Stryker, Mahwah, NJ, 2008.
150. T.J. Webster, "Promoting endothelialization on vascular stents," Atrium, Nassua, NH, 2008.
151. T.J. Webster, "Greater chondrocyte functions on anodized nanostructured metals," presented on behalf of Arthrosurface, Orthopedic Research Society, Las Vegas, NV, 2009.
152. T.J. Webster, "Thoughts on the future of nanomedicine," Biomaterials Research Center, Goteborg, SWEDEN, 2009.
153. T.J. Webster, "Toxicity of nanomaterials," 35th Annual Northeast Bioengineering Conference, Boston, MA, 2009.
154. T.J. Webster, "Nanomaterials for improving implants," NIH Workshop on Nanotechnology, Bethesda, MD, 2009.
155. T.J. Webster, "Regenerative tissues through nanotechnology," NanoToday, SINGAPORE, 2009.
156. T.J. Webster, "Nanotechnology for regenerative medicine," Materials Research Society Annual Fall Meeting, Boston, MA, 2009.
157. T.J. Webster, "Nanomaterials for tissue repair," 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N), Rhodes, GREECE, 2008.
158. T.J. Webster, "Applications of nanomaterials to orthopaedic implants," AAOS, Las Vegas, NV, 2008.
159. T.J. Webster, "The future of nanomedicine," 2nd International Congress on Image and Signal Processing (CISP 2009) and the 2nd International Conference on BioMedical Engineering and Informatics (BMEI 2009), Tianjin, CHINA, 2009.

160. T.J. Webster, “Nanomedicine: future implications,” Gyeongsang National University, SOUTH KOREA, 2009.
161. T.J. Webster, “Nanotechnology for regenerative medicine,” Singapore Institute for Nanotechnology Manufacturing, SINGAPORE, 2009.
162. T.J. Webster, “Compatibility of nanomaterials – The role of their size and surfaces,” Materials Research Society Half-Day Tutorial, Boston, MA, 2009.
163. T.J. Webster, “Nanomaterials for neurological applications,” American Academy of Nanomedicine, Potomoc, MD, 2009.
164. T.J. Webster, “Commercialization of nanotechnology: Is it happening ?,” American Academy of Nanomedicine, Potomoc, MD, 2009.
165. T.J. Webster, “Nanotechnology commercialization: Promises and pitfalls” Keynote presentation at NanoBiotech 2009, RPI, Troy, NY 2009.
166. T.J. Webster, “Nanomaterials for nanomedicine,” Annual Meeting of the Trans European Research and Education Network Association (TERENA), University of Malaga, SPAIN, 2009.
167. T.J. Webster, “Nanotechnology for tissue engineering: A state of the art review”, AIChE Annual Conference, Memphis, TN, 2009.
168. T.J. Webster, “The future of nanomedicine,” IANano, San Francisco, CA, 2009.
169. T.J. Webster, “Nanotechnology perspectives: Big places for small materials ?”, plenary talk at the Wake Forest University Center for Nanotechnology and Molecular Medicine, Wake Forest University, Wake Forest, NC, 2009.
170. T.J. Webster, “Nanotechnology for regenerative medicine: Promises or Pitfalls”, Fourth Asian Particle Technology Symposium (APT 2009: www.ap2009.org), New Delhi during September 14-16, 2009.
171. T.J. Webster, “Nanotechnology for regenerating tissues,” 9th International Conference on Medical Applications of Novel Biomaterials and Nanobiotechnology of the Forum on New Materials, CIMTEC, Silicy, ITALY, 2010.
172. T.J. Webster, “Transforming current implants using nanotechnology,” Boston Scientific, Natick, MA, 2009.
173. T.J. Webster, “Nanomodified catheters for resisting bacteria infection,” 2nd International Conference on Drug Discovery and Therapy, Dubai, UAE, 2010.
174. T.J. Webster, “Prespectives on the nano-hype,” Keynote Presentation for the Regenerative Medicine Conference, ReMedIs, part of ATEQUAL conference series, Iasi, ROMANIA, 2010.
175. T.J. Webster, “The past, present, and future of nanotechnology in medicine,” University of Arkansas Conference on Nanotechnology and Healthcare, Petit Jean Mountain, Arkansas, 2010.
176. T.J. Webster, “Nanotechnology for disease prevention, diagnosis, and treatment,” NSTI, Anaheim, CA, 2010.
177. T.J. Webster, “Urological nanotechnology,” SUFU (Society for Urodynamics and Female Urology, St. Petersburg, FL, 2010.
178. T.J. Webster, “Nanomaterials for medicine,” Nano-structured materials Symposium at ISOPE 2010 in Beijing, CHINA, 2010.
179. T.J. Webster, “Magnetic nanoparticles for orthopaedic prosthesis biofilm disruption,” EUROBIOPILMS, Rome, ITALY, 2009.

180. T.J. Webster, “The future of nanotechnology in medicine,” The 2009 Fall Member Meeting of Internet2 in San Antonio, San Antonio, TX, 2009.
181. T.J. Webster, “Nanotechnology for improving regenerative medicine,” Bioactive Coatings and Surface Biofunctionalization, San Diego, CA, 2009.
182. T.J. Webster, “Nanotechnology for future scientists,” Distance Learning Course to Cyprus, CYPRUS, 2009.
183. T.J. Webster, “Learning nanotechnology,” Nayatt Elementary School, Barrington, RI, 2009.
184. Y. Chen* and T.J. Webster, “Self-injectable cartilage healing materials,” Genzyme, MA, 2009.
185. T. J. Webster, “Nanotechnology commercialization potential,” Dayton, OH, 2009.
186. T.J. Webster, “Nanomedicine and its implications in tissue engineering,” e-MRS, Strasbourg, FRANCE, 2009.
187. T.J. Webster, “Using nanotechnology to improve medicine,” Pisa, ITALY, 2009.
188. T.J. Webster, “Using nanotechnology to promote K-12 learning,” Vartan Gregorian Elementary School, Providence, RI, 2009.
189. T.J. Webster, “Orthopedic applications of nanocomposite,” Lake Louise Conference on Composites, Lake Louise, CANADA, 2009.
190. T.J. Webster, “The past, present, and future of nanotechnology in medicine,” SUNY Downstate, Brooklyn, NY, 2009.
191. T.J. Webster, “The past, present, and future of nanotechnology in regenerative medicine,” 2nd Biomaterials’ Symposium, Queen Mary’s College, London, ENGLAND, 2010.
192. T.J. Webster, “Transforming textiles into cartilage tissue engineering materials,” Concordia, Warwick, RI, 2010.
193. T.J. Webster, “Nanotechnology for tissue engineering,” University of South Florida, Tampa, FL, 2010.
194. T.J. Webster, “Is nanotechnology hype or reality,” SUNY Albany, Albany, NY, 2010.
195. T.J. Webster, “Using nanotechnology to develop sensors,” CMOS Conferences, Whistler, British Columbia, CANADA, 2010.
196. T.J. Webster, “Nanotechnology for increasing tissue growth, decreasing infection, and inhibiting inflammation,” ASME, Denver, CO, 2011.
197. T.J. Webster, “Nanotechnology for medical devices,” GONANO, plenary lecture at the Scandanavian Society for Biomaterials, Gotenborg, SWEDEN, 2011.
198. T.J. Webster, “Shot-peening for creating nanofeatures to improve osteoblast responses,” 11th International Conference on Shot Peening, South Bend, IN, 2011.
199. T.J. Webster, “Nanostructured polymers for improving medical device performance,” Ninth International Symposium on Fronteirs in Biomedical Polymers, Madiera, PORTUGAL, 2011.
200. T.J. Webster, “Making science fun through nanotechnology,” Keynote address at the Martin Luther King NSF G, K – 12 Day, 2011.
210. T.J. Webster, “Controlling cell responses on nanostructured composites,” 21st ISOPE-11 Conference, Maui, Hawaii, 2011.
211. T.J. Webster, “Nanotechnology to improve Johnson and Johnson products,” Providence, RI, 2011.

212. T.J. Webster, “Controlling cell responses through select nanometer features,” IIT Bombay, Mumbai, INDIA, 2011.
213. T.J. Webster, “Improving implant performance through the use of nanometer features,” NFDTC, Hyderabad, INDIA, 2011.
214. T.J. Webster, “Nanoparticles: Friend or foe ?”, IIT Kanpur, Kanpur, INDIA, 2011.
215. T.J. Webster, “Nanomaterials for reducing bacteria interactions,” VA Seminar Series, Providence, RI, 2011.
216. T.J. Webster, “Spinal applications and nanotechnology: What can be learned ?”, Selby Spine Meeting, Salt Lake City, UT, 2011.
217. T.J. Webster, “Pediatric applications in nanotechnology”, International Federation of Pediatrics, Cancun, MEXICO, 2011.
218. T.J. Webster, “Learning from nanotechnology in nature,” IASTED Bio-Med Conference, Innsbruck, AUSTRIA, 2011.
219. T.J. Webster, “The incorporation of nanotechnology into biomedical engineering,” FIU, Miami, FL, 2011.
220. T.J. Webster, “Regenerative medicine for the spine,” Hawks Cay Symposium on the Spine, Hawks Cay, FL, 2011.
221. T.J. Webster, “Amedica materials and anti-infection,” Hawks Cay Symposium on the Spine, Hawks Cay, FL, 2011.
222. T.J. Webster, “What we can learn from nanotechnology,” keynote at the Northeast Bioengineering Conference, RPI, Troy, NY, 2011.
223. T.J. Webster, “Nanotechnology for Boston Scientific,” Providence, RI, 2011.
224. T.J. Webster, “Using vacuum technology for the medical device industry,” keynote at the Society for Vacuum Cleaners, Chicago, IL, 2011.
225. T.J. Webster, “Nanomedicine: Past, present, and future,” keynote at the BIOMAT Conference, GERMANY, 2011.
226. T.J. Webster, “Nanotechnology and toxicity: Making sense or alarm ?”, FDA Nanotox Session, Dayton, OH, 2011.
227. E. Taylor* and T.J. Webster, “Nanoparticles for increasing tissue growth and decreasing infection,” Society of Plastic Engineers Conference, Boston, MA, 2011.
228. E. Asplana* and T.J. Webster, “Commercialization of nanotechnology,” e-MRS Conference, Nice, FRANCE, 2011.
229. T.J. Webster, “Nanotechnology for reducing cancer growth,” Dartmouth, MA, 2011.
230. T.J. Webster, “A tribute to Chinese graduate students in the U.S.,” Chinese Consulate, New York, NY, 2011.
231. T.J. Webster, “How to use nanotechnology to improve implants,” workshop giving at the NSTI Conference, Boston, MA, 2011
232. T.J. Webster, “Nanotechnology to improve Stryker’s products,” Providence, RI, 2011.
233. T.J. Webster, “Selenium to decrease bacteria functions,” Bay Angles, Providence, RI.
234. T.J. Webster, “Bacteria do not like nanomaterials,” keynote at THERMEC, Quebec, CANADA, 2011.

235. T.J. Webster, “Improving cardiac patches through nanotechnology,” ICCM18, Jeju, SOUTH KOREA, 2011.
236. T.J. Webster, “Nanotechnology and medical devices: A Collaboration to be made,” MedDevice Conference, San Diego, CA, 2011.
237. T.J. Webster, “Nanotechnology applications for Medtronic,” workshop presented to the Female Scientist Group, Medtronic, Minneapolis, MN, 2011.
238. T.J. Webster, “Tech transfer for nanotechnology,” panel discussion and invited talk, Biomedical Engineering Society, Hartford, CT, 2011.
239. T.J. Webster, “Nanotechnology for Amedica,” NAAS, Chicago, IL, 2011.
240. T.J. Webster, “Nanotechnology for Wellstat,” Arlington, VA, 2011.
241. T.J. Webster, “New advances in nanotechnology,” keynote for IEEE EMBS, Jeju, SOUTH KOREA, 2011.
242. T.J. Webster, “Using nanotechnology to mimic tissues,” Functional Human Tissue Model Conference, Boston, MA, 2011.
243. T.J. Webster, “Nanotechnology for regenerative medicine,” GWU, Washington, D.C., 2011.
244. T.J. Webster, “The commercialization of nanotechnology,” World Congress for Biomaterials, Chengdu, CHINA, 2012.
245. T.J. Webster, “Nanotechnology for small diameter grafts,” Society for Biomaterials, New Orleans, 2012.
246. T.J. Webster, “Using nanotechnology to improve cell responses,” workshop to be given at the NSTI conference, Santa Clara, CA, 2012.
247. T.J. Webster, “Ceramic nanotechnology for orthopedics,” keynote at International Conference on Ceramics, Antalya, TURKEY, 2012.
248. T.J. Webster, “Nanomedicine: Thoughts and perspectives,” Istanbul Technological University, Istanbul, TURKEY, 2012.
249. T.J. Webster, “Nanoparticles for fighting cancer and germs,” plenary at BIOMED, Innsbruck, AUSTRIA, 2012.
250. T.J. Webster, “Nano drug delivery: What has not been done “, International Conference on Nanomedicine, Omaha, 2012.
251. T.J. Webster, “In situ nanotechnology derived sensors,” plenary at CMOS, Vancouver, CANADA, 2012.
252. T.J. Webster, “Nanotechnology for the spine: Promises,” Selby Spine Conference, Salt Lake City, Utah, 2012.
253. T.J. Webster, “Orthopedic applications of nanotechnology,” Hawks Cay Spine Session, Hawks Cay, FL, 2012.
254. T.J. Webster, “Nanodrug delivery,” plenary at the Controlled Release Society Regional Conference, Yale University, New Haven, CT, 2012.
255. T.J. Webster, “Nano-orthopedics”, CIMTEC, Florence, ITALY, 2012.
256. T.J. Webster, “Nanotechnology: Miscues and hits,” Vanderbilt University, TN, 2012.
257. T.J. Webster, “Nanotechnology for bioceramic applications,” Middle Eastern University, Ankara, TURKEY, 2012.
258. T.J. Webster, “Learning science through nanotechnology,” Wheeler Seminar Series, Providence, RI, 2012.

259. T.J. Webster, “Cautions about nanotechnology,” FDA Educational Series, College Park, MD, 2012.
260. T.J. Webster, “What have we learned from nanotechnology....”, National Academy of Engineers Annual Conference, Michigan, 2012.
261. T.J. Webster, “Merging nanotechnology and medicine,” keynote at ASAIIO, San Francisco, CA, 2012.

+49 additional external presentations available upon request.