Sujata K. Bhatia, MD, PhD, PE

Professor of Chemical & Biomolecular Engineering, University of Delaware
Faculty Director, McNair Scholars Program, University of Delaware
Faculty Member, Harvard Extension School and Harvard Summer School
Calestous Juma Visiting Fellow in Bioengineering, Kent School
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SUMMARY: **Academic leader, faculty member, and physician-engineer with private and public sector experience:**

- **Academic experience as a faculty member in biomedical engineering, chemical engineering, and government; teaching and advising biomedical engineering students, developing visionary medical device design projects, and authoring biomaterials textbooks**
- **Administrative experience in student affairs, curriculum development and review, academic advising, executive education, continuing education, joint degree programs, and residential life**
- **Industrial experience in medical device and biotechnology product development, clinical trials, intellectual property, leadership of multidisciplinary teams, and industry-academic partnerships**
- **Professional leadership as speaker, panelist, and committee member for National Academy of Engineering, National Aeronautics and Space Administration, National Academy of Sciences, National Science Foundation, National Institutes of Health, National Institute of Standards and Technology, Institute of Medicine, American Association for the Advancement of Science, American Society for Engineering Education, United States Department of Health and Human Services, United States Department of State, and United States Department of Defense**
- **International lecturer and panelist for scientific organizations in Kenya, Mauritius, Nigeria, Kazakhstan, Portugal, Chile, Ireland, and Denmark**

EDUCATION:

August 1999-Sept 2003 **University of Pennsylvania School of Medicine, MD/PhD program,** Philadelphia, PA
Medical Doctorate (M.D.)
Doctor of Philosophy (Ph.D.) in Bioengineering; Advisor: Dr. Daniel A. Hammer
Thesis: Experimental & computational models of leukocyte adhesion via selectins and integrins

Sept 1997-May 1999 **University of Delaware**, Newark, DE
Master of Chemical Engineering (M.ChE.); Advisor: Dr. Anne S. Robinson
Thesis: The role of cysteine residues in folding of P22 Tailspike protein

Sept 1995-May 1999 **University of Delaware**, Newark, DE GPA: 3.97/4.00
Bachelor of Chemical Engineering (B.ChE.), *summa cum laude*
Bachelor of Science (B.S.) in Biology, *summa cum laude*
Bachelor of Science (B.S.) in Biochemistry, *summa cum laude*

PROFESSIONAL REGISTRATION:

June 2012-present **Registered Professional Engineer (P.E.), State of Massachusetts**
Chemical Engineer, License No. 49908

EXPERIENCE:

Jan 2016-present **University of Delaware,** Newark, DE

Professor of Chemical & Biomolecular Engineering

- Teacher of chemical engineering senior design, utilizing industrial experience and clinical background to conceive and advise undergraduate senior design projects
- Teacher of Grand Challenges colloquium for Honors Program students

Faculty Director, McNair Scholars Program

- Leader of high-impact, federally sponsored undergraduate program for underrepresented minorities, low income, and first-generation college students
- Designer of summer undergraduate research program for students, and mentor for undergraduate students to encourage pursuit of doctoral degrees

Affiliated Faculty, Biomedical Engineering

- Teacher of biological transport phenomena and cell & tissue engineering laboratory

Affiliated Faculty, Center for Applications of Mathematics in Medicine

- Collaborator to apply mathematics and computation to biomedical research and clinical practice

May 2011-present **Harvard University,** Cambridge, MA

August 2012-present **Faculty Member, Harvard Extension School**
- Teacher of tissue engineering and biomedical product development courses
- Thesis sdviser for Master of Liberal Arts students in Biotechnology and Biology

June 2012-present **Faculty Member, Harvard Summer School**
- Teacher of tissue engineering, biochemical engineering, and entrepreneurship courses

Jan 2013-June 2017 **Associate, John F. Kennedy School of Government**
- Faculty member in Executive Education programs on Innovation for Economic Development, and Technology, Innovation, and Entrepreneurship
- Engineering expert for the Science, Technology, and Globalization Project at the Belfer Center for Science and International Affairs
- Leader of projects to foster medical innovation and development in Africa
- Leader of efforts to educate the global community on Global Grand Challenges in Engineering

Sept 2012- Sept 2013 **Administrative Fellow, Office of the Assistant to the President**
- Fellow in leadership development and leadership cultivation program for higher education

Summers 2012-2014 **Assistant Dean, Harvard Summer School**
- Member of the Deans Council and supervisor for a staff of twenty residential proctors
- Leader of daily operations for multiple residential houses, with on-call duties
- Academic advisor and mentor to students enrolled in summer session at Harvard University

May 2011-Jan 2016 **Assistant Director of Undergraduate Studies and Lecturer on Biomedical Engineering**
- Faculty member and curriculum developer for undergraduate courses in bioengineering
- Academic advisor for all undergraduate students in biomedical engineering and bioengineering
- Leader of biomedical engineering senior design program, utilizing industrial experience and clinical background to conceive and advise undergraduate senior design projects
- Residential academic advisor to freshman students in Harvard Yard, with on-call duties
- Liaison with Office of Student Affairs within School of Engineering and Applied Sciences

May 2011-Aug 2013 **Tufts University,** Medford, MA
Professor of the Practice of Chemical and Biological Engineering
- Teacher of undergraduate courses in chemical and biological engineering
- Leader of chemical engineering senior design program, utilizing industrial experience and clinical background to conceive and advise undergraduate senior design projects

Sept 2009-May 2011 **University of Delaware**, Newark, DE
Adjunct Professor, Department of Chemical Engineering
- Teacher of undergraduate and graduate courses in biochemical and biomedical engineering

Sept 2003-May 2011 **DuPont Company,** Wilmington, DE

Jan 2010-May 2011 Principal Investigator, DuPont Applied Biosciences
- Designed and led **clinical trials** of omega-3 fatty acids for effects on cholesterol, triglycerides, atherosclerotic plaque, and cardiovascular disease biomarkers
- Collaborated with legal, regulatory, and business development teams to develop clinical indications for omega-3 fatty acids based on scientific evidence
- Corporate liaison for DuPont-sponsored grant to Dr. Ernst Schaefer at Tufts University

Jan 2009-Dec 2009 Principal Investigator, Central Research & Development, Intellectual Assets & Licensing
- Representative for licensing biomedical technologies to pharmaceutical and biotechnology companies, as well as academic institutions
- Collaborated with legal, business development, and scientific teams to manage **intellectual property** and execute licensing agreements

Sept 2003-Dec 2008 Principal Investigator, Central Research & Development, Biochemical Sciences & Engineering
- Developed **novel biomaterials and medical devices** including bio-adhesives for internal wound closure, adhesion prevention devices, and microspheres for therapeutic embolization
- Designed and led *in vitro* and *in vivo* studies to determine biocompatibility and efficacy of implantable medical materials
- Six Sigma Black Belt certified; Quality System Regulations (QSR) training in medical devices
- Corporate liaison for DuPont-MIT Alliance grants to Dr. Robert Langer and Dr. Elazer Edelman
- Corporate liaison for DuPont Young Professor grant to Dr. Gregory Tew at U. Massachusetts
- External liaison with physicians and researchers at Cornell, Johns Hopkins, Penn, and MIT; experience translating customer (physician) needs into technical attributes

- External liaison with **key opinion leaders** in cardiology, oncology, ophthalmology, colorectal surgery, general surgery, and interventional radiology
- Corporate liaison for DuPont/state of Delaware biotech education partnership
- Promoted from Medical Research Scientist to Research Associate in 2008

***PROFESSIONAL HONORS*:**

2019 – University of Delaware, Biomedical Engineering Class of 2019 Greatest Of All Time Award
2019 – University of Delaware, Center for Teaching and Learning, Instructional Improvement Grant
2019 – University of Pennsylvania, Invited Keynote Speaker for Bioengineering Graduate Research Symposium
2018 – University of Delaware, Grand Challenges Interdisciplinary Grant
2018 – University of Delaware, Faculty Senate, Excellence in Teaching Award Nominee
2017 – University of Delaware, Horn Entrepreneurship Faculty Fellow
2017 – University of Delaware, Science, Ethics, and Public Policy, Curriculum Development Grant
2017 – University of Delaware, Center for Teaching and Learning, Instructional Improvement Grant
2016 – American Institute of Chemical Engineers, Invited Keynote Speaker
2016 – University of Delaware, Invited Exhibit for Inaugural Art in Science Symposium
2016 – Harvard University, Harvard Yearbook Class of 2016 Favorite Professor
2015 – Harvard University, Harvard Yearbook Class of 2015 Favorite Professor
2015 – Harvard University, Star Family Prize for Excellence in Advising Nominee
2015 – University of Delaware, Invited Graduation Speaker for Department of Biological Sciences
2014 – Harvard University, Harvard Yearbook Class of 2014 Favorite Professor
2014 – Harvard University, Star Family Prize for Excellence in Advising Nominee in All Four Award Categories
2014 – American Society for Engineering Education, 20 Under 40 List of Top Engineering Educators
2014 – TEDxUNC University of North Carolina, Invited Speaker at TEDx Conference
2014 – State of Delaware, "Yes I Can" Hall of Fame
2014 – Anne Arundel Community College, Invited Graduation Speaker for Engineering Scholars Program
2013 – Harvard University, Capers and Marion McDonald Award for Excellence in Mentoring and Advising
2013 – Harvard University, Star Family Prize for Excellence in Advising Winner
2013 – Harvard University, Invited Commencement Speaker for Master of Liberal Arts Graduation Ceremony
2013 – Harvard University, Certificate of Teaching Excellence from Derek Bok Center for Teaching and Learning
2013 – White House, Invited to Champions of Change Ceremony
2013 – National Academy of Engineering, Frontiers of Engineering Education (one of 73)
2013 – National Academy of Engineering & National Academy of Sciences & Institute of Medicine, Keck Futures Initiative
2013 – National Academy of Engineering, Invited Participant in U.S.-U.K.-China Global Grand Challenges Summit
2013 – United States Department of State, Invited Participant and Co-Organizer in Global Diaspora Forum
2013 – American Association for the Advancement of Science, Invited Speaker
2013 – MIT Entrepreneurship Center, Invited Participant in "Hacking Medicine" Conference (one of 100)
2013 – Women of Color STEM Outstanding Achievement Award, Technology Rising Star
2013 – Christiana High School, Golden Anniversary Star Graduate
2012 – Harvard University, John R. Marquand Award for Exceptional Advising and Counseling of Harvard Students
2012 – Harvard University, Star Family Prize for Excellence in Advising Finalist
2012 – Harvard University, Certificate of Teaching Excellence from Derek Bok Center for Teaching and Learning
2012 – Harvard University, President's Innovation Fund for Faculty Award
2012 – Harvard University, Resident Fellow in Administrative Fellowship Program
2012 – Phi Beta Kappa at Harvard College, Invited Keynote Speaker
2012 – MIT Entrepreneurship Center, Invited Participant in "Hacking Medicine" Conference (one of 80)
2012 – BioEnvironmental Polymer Society, Invited Keynote Speaker
2012 – National Collegiate Inventors and Innovators Alliance, Course and Program Grant
2011 – MIT Entrepreneurship Center, Invited Participant in Inaugural "Hacking Medicine" Conference (one of 100)
2009 – Girls Incorporated of Delaware, Strong Smart & Bold Award
2009 – American Association of University Women, Invited Keynote Speaker
2009 – Emerging Leaders Alliance, Invited Participant
2008 – National Science Olympiad, Invited Keynote Speaker
2007 – National Academy of Engineering, Japan-America Frontiers of Engineering Co-Organizer
2007 – State of Delaware, Hall of Fame of Delaware Women
2006 – National Academy of Engineering, Japan-America Frontiers of Engineering (one of 40)
2006 – University of Delaware, Presidential Citation for Outstanding Achievement
2005 – National Academy of Engineering, U.S. Frontiers of Engineering (one of 100)

***GRADUATE HONORS*:**

2003 – American Chemical Society, Catalyx Technologies Award for Best Poster
2002 – Lymphatic Research Foundation, Andrew Moisoff Young Investigator Award

2001 – American Institute of Chemical Engineers, First Place in Student Poster Paper Competition
1999 – Whitaker Foundation Graduate Fellowship in Biomedical Engineering
1999 – National Defense Science and Engineering Graduate Fellowship
1999 – National Science Foundation Graduate Fellowship
1999 – Howard Hughes Medical Institute Predoctoral Fellowship
1999 – NIH Medical Scientist Training Program (MSTP) MD/PhD Grant
1999 – Tau Beta Pi National Fellowship
1999 – Phi Kappa Phi National Fellowship

***UNDERGRADUATE HONORS*:**
1999 – Phi Beta Kappa Honor Society
1999 – Order of the Engineer
1999 – American Association of University Professors Award
1999 – University of Delaware Woman of Promise
1999 – University of Delaware Advanced Honors Certificate
1999 – College of Engineering Charles B. Evans Prize
1999 – American Institute of Chemists Award
1999 – Chemical Engineering Industrial Sponsors Senior Student Award
1998 – American Institute of Chemical Engineers, First Place in National Student Paper Competition
1998 – Barry M. Goldwater Scholarship
1998 – Tau Beta Pi Engineering Honor Society
1998 – Phi Kappa Phi Honor Society
1998 – Omega Chi Epsilon Chemical Engineering Honor Society
1998 – American Institute of Chemical Engineers Junior Award
1998 – Robert L. Pigford Undergraduate Award
1997 – American Chemical Society Award in Chemical Engineering
1997 – National Science Foundation, Research Experiences for Undergraduates (REU) at MIT
1997 – American Institute of Chemical Engineers Sophomore Award
1997 – Donald F. Othmer Sophomore Engineering Excellence Award
1996 – Chemical Engineering Class of 1950 Scholarship
1996 – Chemical Engineering Industrial Sponsors Scholarship
1996 – University of Delaware Alumni Association Scholarship
1996 – Alpha Lambda Delta Honor Society
1995 – Delaware Academy of Sciences Award in Science and Technology
1995 – University of Delaware Honors Program Scholarship
1995 – National Merit Scholarship
1995 – Delaware Engineering Society Scholarship
1995 – University of Delaware Scholar Award
1995 – Robert C. Byrd Scholarship
1995 – Diamond State Scholarship

***PROFESSIONAL LEADERSHIP*:**
2018 – National Institutes of Health (NIH), National Institute on Biomedical Imaging and Bioengineering (NIBIB), Rowan University Bioengineering Team-Based Projects and Summer Immersion, Program Faculty
2018 – Delaware Biotechnology Institute, Graduate Opportunities: Learn, Engage, Discover (GOLEAD), Program Faculty
2017 – Biomedical Engineering Society/National Science Foundation, Invited Panelist for Special Session on Graduate Research Fellowships
2017 – Delaware Bioscience Association/Delaware Sustainable Chemistry Alliance, Inspiring Women in STEM Conference, Invited Panelist on Effectively Leading Diverse Teams
2017 – Independent Research Fund Denmark, Grant Reviewer for Sapere Aude (Dare to Know) for Technology and Production Sciences
2016 – National Institutes of Health, Grant Reviewer for Institutional Development Award (IDeA) Networks of Biomedical Research Excellence (INBRE) Program
2015 – Health Research Board of Ireland, Grant Reviewer for Research Training Fellowship for Healthcare Professionals
2015 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Invited Co-Organizer of Health Industry Bootcamp for Health Data Initiative Forum
2014 – present – National Science Foundation, Panelist for Graduate Research Fellowship Program
2014 – American Society for Engineering Education/United States Department of Defense, Panelist for National Defense Science and Engineering Graduate Fellowship
2014 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Invited Panelist for Health Data Initiative Forum

2014 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Invited Co-Organizer of Health Industry Bootcamp for Health Data Initiative Forum
2013 – 2016 – Global Public Service Academies, Faculty Leader
2013 – National Institutes of Health (NIH), National Institute on Biomedical Imaging and Bioengineering (NIBIB), Rowan University Bioengineering Team-Based Projects and Summer Immersion, Program Faculty
2013 – National Aeronautics and Space Administration (NASA), Focus Group on Space Exploration in Education
2013 – United States Department of State/United States Agency for International Development (USAID), Session Organizer on STEM Diasporas for Global Diaspora Forum
2013 – United States Department of State/American Association for the Advancement of Science (AAAS)/National Academy of Sciences/National Academy of Engineering, Networks of Diasporas in Engineering and Sciences (NODES) in partnership with Ireland's Presidency of the Council of the European Union 2013, Invited Panelist on Women in Science, Technology, Engineering & Math (STEM)
2013 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Invited Co-Organizer of Health Industry Bootcamp for Health Data Initiative Forum
2013 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Judge for National Apps Competition for Health Data Initiative Forum
2013 – Universities Allied for Essential Medicines (UAEM), Expert Group for Forum on Global Access Licensing of Medical Technologies
2013 – International Biopolymer Workshop, Jomo Kenyatta University of Agriculture and Technology in Kenya, Faculty Member
2013 – National Science Foundation, Alliances for Graduate Education and the Professoriate PROMISE Summer Success Institute, Mentor-In-Residence
2013 – National Science Foundation, Rocky Mountain Science and Sustainability Network, Academy Faculty Member
2013 – ASME Global Congress on Nanoengineering for Medicine and Biology, Session Chair on Biomimetic Nanostructures for Engineering New Tissues
2013 – MIT Educational Studies Program, Seminar Teacher for Splash Outreach Curriculum
2013 – MIT Global Poverty Initiative/Harvard Developers for Development, International Development Hackathon Judge
2013 – MIT Entrepreneurship Center, Hacking Medicine and Athenahealth Hackathon Judge
2013 – Walt Disney/Marvel Studios and Discovery Science Center, Marvel's Iron Man 3: Inventor and Innovator Fair Judge
2013 – Americas Datafest, International Hackathon Judge
2012 – 2016 – National Science Foundation, Advisory Board for Integrative Graduate Education and Research Traineeship (IGERT) Program on Systems Biology of Cells in Engineered Environments at the University of Delaware
2012 – 2014 – Guitars in the Classroom: An Initiative of the United Nations (UN) Music as a Global Resource for Millennium Development Goals, Faculty Fellow
2012 – Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Invited Panelist for Health Data Initiative Forum
2012 – American Association for the Advancement of Science (AAAS), Reviewer for Indo-US Science and Technology Forum
2012 – Chilean Government Commission for Scientific and Technological Development (CONICYT), Review Committee for National Fund for Scientific and Technological Development (FONDECYT)
2012 – 2014 – Oak Ridge Associated Universities, Reviewer for Nazarbayev University Research Council in Kazakhstan
2012 – 2013 – BioEnvironmental Polymer Society, Professional Member
- 2012 Session Chair on Biobased Hydrogels

2011 – 2015 – Scientista Foundation for Women in Science, Technology, Engineering & Math (STEM), Board Member
2011 – 2015 – Biomedical Engineering Society, Professional Member
- 2011 – 2015 – Faculty Advisor for Harvard College Section of Biomedical Engineering Society

2011 – National Science Foundation, Panelist for Partnerships For Innovation – Materials, Manufacturing & Construction
2011 – United States-Portugal Clinical Research Master Program at Universidade Nova de Lisboa (NOVA Medical School), Faculty Member
2011 – IEEE Engineering in Medicine and Biology Society, Session Co-Chair on Novel Approaches to Biomedical Engineering Education
2010 – American Heart Association, Professional Member
2009 – National Academy of Sciences, Review Committee for Ohio Biomedical Research & Commercialization Program
2009 – American Association for Cancer Research, Professional Member
2008 – 2011 – National Science Foundation, External Advisory Board for Innovative Technology Experiences for Students and Teachers (ITEST) Nanotechnology Program at the University of Pennsylvania
2007 – 2011 – State of Delaware, Commission for Women
2007 – 2009 – American Diabetes Association of Delaware and Eastern Maryland, Board Member
- 2007 DuPont Volunteer Recognition Award

2007 – National Academy of Engineering, Session Organizer for Materials in Medicine at Japan-America Frontiers of Engineering
2007 – Chemical Heritage Foundation, Delegate for Gordon Cain Conference on New Chemical Bodies

2006 – 2014 – American Chemical Society, Active Member
- 2013 Panelist on Academic Life for Graduate Research Symposium of Division of Organic Chemistry
- 2009 ChemLuminary Award for Outstanding Continuing Public Relations Program of a Local Section
- 2009 ChemLuminary Award for Outstanding Industrial Involvement
- 2009 National Chemistry Week Chair
- 2008 Delaware Section Chair
- 2008 ChemLuminary Award for Outstanding Local Section Younger Chemists Committee
- 2008 ChemLuminary Award for Local Section Government Affairs
- 2008 ChemLuminary Award for Outstanding Industrial Involvement
- 2007 Delaware Section Chair-Elect

2006 – 2011 – Next Generation of the Delaware Community Foundation
- 2008 DuPont Volunteer Recognition Award

2006 – 2011 – University of Delaware, Engineering Alumni Association, Board of Directors
- 2009 Chair of the Board of Directors
- 2007 Treasurer of the Board of Directors

2006 – 2008 – State of Delaware, Governor's Council on Lifestyle and Fitness
2005 – National Academy of Sciences, Delegate for Roundtable on Biomedical Engineering Materials and Applications
2004 – National Academy of Engineering, Delegate for Mid-Atlantic Regional Symposium
2004 – present – FocalCool LLC, Scientific Advisory Board
2003 – 2009 – University of Delaware, Women in Engineering, Professional Mentor
2003 – 2004 – Explore Engineering Program for Female High School Students, Professional Mentor
1999 – 2004 – University of Pennsylvania, Science & Technology Wing (STwing), Graduate Residential Advisor
1999 – 2004 – University of Pennsylvania, PennScience Research Journal, Founder and Science Editor
1997 – present – American Institute of Chemical Engineers, Senior Member
- 2013 – present – Women's Initiatives Committee
- 2007 Wilmington Section Chair

INVITED REVIEWER FOR JOURNALS:
[1] *Acta Biomaterialia*
[2] *Advanced Drug Delivery Reviews*
[3] *AIChE Journal*
[4] *Algal Research*
[5] *American Journal of Public Health*
[6] *Applied Mathematical Modelling*
[7] *Biomacromolecules (American Chemical Society)*
[8] *Biomaterials*
[9] *Biomaterials Science (Royal Society of Chemistry)*
[10] *Bioresource Technology*
[11] *Biotechnology and Bioengineering*
[12] *Biotechnology Journal*
[13] *Current Nutrition and Food Science*
[14] *Frontiers in Cancer Molecular Targets and Therapeutics*
[15] *International Journal of Developmental Neuroscience*
[16] *International Journal of Molecular Sciences*
[17] *Journal of Biotechnology*
[18] *Journal of Controlled Release*
[19] *Journal of Materials Chemistry (Royal Society of Chemistry)*
[20] *Journal of Materials Science: Materials in Medicine*
[21] *Journal of the Royal Society Interface (The Royal Society)*
[22] *Journal of Visualized Experiments*
[23] *Langmuir (American Chemical Society)*
[24] *Molecular BioSystems (Royal Society of Chemistry)*
[25] *Recent Patents on Regenerative Medicine*
[26] *Soft Matter (Royal Society of Chemistry)*

***PATENTS*:**
C. Ding, J. G. Fernandez, S. K. Bhatia, D. E. Ingber, "Methods and Devices for Forming a Coating Layer," U.S. patent application 61/748882, filed 1/2013.

G. D. Figuly, S. Mahajan, R. S. Schiffino, S. K. Bhatia, E. R. Edelman, T. M. Shazly, M. J. Feldstein, "Medical Treatment Applications of Swellable and Deformable Microspheres," U.S. patent 8,252,339, filed 4/2007, issued 8/2012.

G. D. Figuly, S. Mahajan, R. S. Schiffino, S. K. Bhatia, E. R. Edelman, T. M. Shazly, M. J. Feldstein, "Medical Treatment Applications of Swellable and Deformable Microspheres," U.S. patent application 13546594, filed 7/2012.

S. K. Bhatia, H. K. Chenault, "Method of Inhibiting Proliferation of *Escherichia coli*," U.S. patent application 20090035249, filed 8/2007.

PUBLICATIONS: (>1700 Total Citations; H-Index = 19)
http://scholar.google.com/citations?user=f6EGjLcAAAAJ&hl=en&oi=ao

Books:
[1] K. W. Ramadurai, S. K. Bhatia, *Reimagining Innovation in Humanitarian Medicine: Engineering Care for Health and Welfare,* Springer, New York (2019). ISBN 978-3030032845

[2] A. A. Tracy, S. K. Bhatia, K. W. Ramadurai, *Bio-Based Materials as Applicable, Accessible, and Affordable Healthcare Solutions,* Springer: New York (2018). ISBN 978-3319693255

[3] S. K. Bhatia, K. W. Ramadurai, *3D Printing and Bio-Based Materials in Global Health,* Springer: New York (2017). ISBN 978-3319582764

[4] S. Arias, S. K. Bhatia, *Medical Applications for Biomaterials in Bolivia,* Springer: New York (2015). ISBN 978-3319167749

[5] E. P. Holowka, S. K. Bhatia, *Drug Delivery: Materials Design and Clinical Perspective,* Springer: New York (2014). ISBN: 978-1493919970

[6] V. Eswarappa, S. K. Bhatia, *Naturally Based Biomaterials and Therapeutics: The Case of India,* Springer: New York (2012). ISBN: 978-1461453857

[7] O. A. Fatunde, S. K. Bhatia, *Medical Devices and Biomaterials for the Developing World: Case Studies in Ghana and Nicaragua,* Springer: New York (2012). ISBN: 978-1461447580

[8] S. K. Bhatia, *Engineering Biomaterials for Regenerative Medicine,* Springer: New York (2011). ISBN: 978-1461410799
- Appeared on Amazon.com Kindle best-seller lists for Polymer Science, Polymer Chemistry, and Microbiology

[9] S. K. Bhatia, *Biomaterials for Clinical Applications,* Springer: New York (2010). ISBN: 978-1441969194
- Utilized as textbook for ENSC 132 – Tissue Engineering for Clinical Applications, a course for undergraduate and graduate students at Harvard University; CHEG 667 – Biomaterials for Gene and Drug Delivery, a course for undergraduate and graduate students at the University of Delaware; and CHEM 6650 – Special Topics in Physical and Inorganic Chemistry: Biomaterials, a course for undergraduate and graduate students at Oklahoma State University
- Appeared on Amazon.com best-seller lists for Biomedical Engineering, Clinical Chemistry, and Biotechnology
- Appeared on Amazon.com Kindle best-seller lists for Clinical Chemistry and Materials Science
- Selected as Innovation Book of the Week by the Harvard Science, Technology, and Globalization Project

[10] S. K. Bhatia, *Selectin-Mediated Leukocyte Adhesion During the Immune Response: Experimental and computational studies of white blood cell adhesion to the vascular wall,* VDM Verlag: Germany (2008). ISBN: 978-3639094541

Book Chapters:
[11] K.-K. Aung, S. Levy, S. K. Bhatia, "Bringing Regenerative Medicine to Patients: The Coverage, Coding, and Reimbursement Processes," in K.J.L. Burg, D. Dréau, T. Burg (eds), *Engineering 3D Tissue Test Systems,* CRC Press: New York (2017). ISBN: 978-1138745674

[12] D. D. Monie, S. K. Bhatia, "Bioprinting of Dynamic Human Organs-on-Chips: Enabling Technologies for Rapid Drug Development and Personalized Medicine," in K. Turksen (ed), *Bioprinting in Regenerative Medicine,* Springer: New York (2015). ISBN: 978-3319213866

[13] V. M. Ye, S. K. Bhatia, "Metabolic Engineering for the Biosynthesis of Longevity Molecules Rapamycin and Resveratrol," in P. Grunwald (ed), *Industrial Biocatalysis,* CRC Press: New York (2014). ISBN: 978-9814463881

[14] S. K. Bhatia, "Adhesive Biomaterials for Tissue Reconstruction," in V. Popa (ed), *Polymeric Biomaterials, 3rd Ed.,* CRC Press: New York (2012). ISBN: 978-1420094725

[15] S. K. Bhatia, "Translation of Pro-Angiogenic and Anti-Angiogenic Therapies into Clinical Use," in C. Reinhart-King (ed), *Mechanical and Chemical Signaling in Angiogenesis,* Springer: New York (2012). ISBN: 978-3642308550

[16] S. K. Bhatia, S. R. Bhatia, "Bioactive Devices," in S. Lee, D. Henthorn (eds.), *Materials in Biology and Medicine,* CRC Press: New York (2012). ISBN: 978-1439881699

[17] S. K. Bhatia, S. R. Bhatia, "Biomaterials," in S. Lee, D. Henthorn (eds.), *Materials in Biology and Medicine,* CRC Press: New York (2012). ISBN: 978-1439881699

[18] S. K. Bhatia, S. R. Bhatia, "Bioactive Devices," in S. Lee (ed), *Encyclopedia of Chemical Processing, 3rd Ed.,* CRC Press: New York (2009). ISBN: 978-0824755634

[19] S. K. Bhatia, S. R. Bhatia, "Biomaterials," in S. Lee (ed), *Encyclopedia of Chemical Processing, 2nd Ed.,* CRC Press: New York (2005). ISBN: 978-0824755634

Journal Articles:

[20] S. K. Bhatia, D. L. Turock, "Chemical Engineers Respond to the Addiction Epidemic," *Chemical Engineering Progress* (2017), 113: 29-33.

- Selected as cover story for November 2017 issue of *Chemical Engineering Progress*

[21] M. A. Wagner, W. H. Marks, S. K. Bhatia, "Hydrogel Encapsulation to Improve Cell Viability During Syringe Needle Flow," *Journal of Long-Term Effects of Medical Implants* (2014), 24: 151-162.

[22] S. K. Bhatia, S. Sharma, "3D-Printed Prosthetics Roll Off the Presses," *Chemical Engineering Progress* (2014), 110: 28-33.

[23] S. K. Bhatia, "Fermentation Fundamentals: Brewing Bugs for Bioengineering," *Chemical Engineering Progress* (2014), 110: 38-42.

[24] M. L. Williams, S. K. Bhatia, "Engineering the Extracellular Matrix: Endoderm, Mesoderm, and Ectoderm," *Biotechnology Journal* (2014), 337-347.

[25] S. K. Bhatia, "Global Grand Challenges for Engineering and International Development," *Harvard International Review* (2013), 35: 4-5.

[26] S. K. Bhatia, "Biology as a Basis for Biochemical Engineering," *Chemical Engineering Progress* (2013), 109:40-44.

[27] S. K. Bhatia, "Book Review: Extreme Tissue Engineering – Concepts and Strategies for Tissue Fabrication," *Biotechnology Journal* (2013), 8:878-879.

[28] M. M. Reddy, S. Vivekanandhan, M. Misra, S. K. Bhatia, A. Mohanty, "Biobased Plastics and Bionanocomposites: Current Status and Future Opportunities," *Progress in Polymer Science* (2013), 38:1653-1689.

[29] S. K. Bhatia, "Bioactive Devices: Uniting Form with Function," *Chemical Engineering Progress* (2013), 109:36-39.

- Invited contribution for Society of Biological Engineers special section on Drug Delivery, featured on cover of March 2013 issue of *Chemical Engineering Progress*

[30] S. K. Bhatia, "Development Tech," *Harvard International Review* (2013), 34:4-5.

[31] B. G. Gerberich, S. K. Bhatia, "Tissue Scaffold Surface Patterning for Clinical Applications," *Biotechnology Journal* (2013), 8:73-84.

[32] S. K. Bhatia, "Bio-Based Materials Step Into the Operating Room," *Chemical Engineering Progress* (2012), 108:49-53.

- Selected as cover story for September 2012 issue of *Chemical Engineering Progress*

[33] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Carbon Nanobrush-Containing Poloxamer Hydrogel Composites for Tissue Regeneration," *Journal of Long-Term Effects of Medical Implants* (2012), 22:229-236.

[34] S. Seetharam, S. K. Bhatia, "Derivation and Application of a Mathematical Model for Long Bone Growth," *Journal of Long-Term Effects of Medical Implants* (2012), 22:253-262.

[35] S. K. Bhatia, V. M. Ye, "Metabolic Engineering Strategies for the Production of Beneficial Carotenoids in Plants," *Food Science and Biotechnology* (2012), 21:1511-1517.

[36] Y. Kirzner, M. Marcolongo, S. K. Bhatia, "Advances in Biomaterials for the Treatment of Intervertebral Disc Degeneration," *Journal of Long-Term Effects of Medical Implants* (2012), 22:73-84.

[37] P. J. Gillies, S. K. Bhatia, L. A. Belcher, D. B. Hannon, J. T. Thompson, J. P. Vanden Heuvel, "Regulation of Inflammatory and Lipid Metabolism Genes by Eicosapentaenoic Acid-Rich Oil," *Journal of Lipid Research* (2012), 53:1679-1689.

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[71] S. K. Bhatia, B. Crane, D. Goligorsky, J. P. Zinter, G.-Y. Wei, "An Introductory Short Course in Design Thinking for Undergraduate and Graduate Students," *Proceedings of the American Society for Engineering Education Northeast Section Conference*, Lowell, MA, April 2012.

[72] S. K. Bhatia, "An Introductory Short Course in Biochemical and Biomedical Engineering for Undergraduate Students," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 459-460.

[73] O. A. Fatunde, S. K. Bhatia, "Medical Devices and Biomaterials for the Developing World: Technical Solutions and Policy Recommendations," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 457-458.

[74] S. R. Seetharam, S. K. Bhatia, "Application of a Mathematical Model for Long Bone Growth," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 401-402.

[75] S. R. Seetharam, S. K. Bhatia, "Derivation and Development of a Mathematical Model for Long Bone Growth," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 399-400.

[76] S. Sahni, S. K. Bhatia, "Risk of Aortic Dissection Due to Aortic Curvature and Malignant Hypertension," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 397-398.

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[78] L. A. Rea, S. K. Bhatia, "Mechanical Characterization of Corn-Derived Poly-L-Lactic Acid," *Proceedings of the IEEE 38th Annual Northeast Bioengineering Conference*, Philadelphia, PA, March 2012, 175-176.

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[80] S. K. Bhatia, "A Disease-Centered Approach to Biomaterials Education and Medical Device Design," *Conference Proceedings of the IEEE Engineering in Medicine and Biology Society (EMBS)*, Boston, MA, August 2011, 3617-3619.

[81] S. K. Bhatia, S. Bryant, J. A. Burdick, J. M. Karp, K. Walline (eds.) *Engineering Biomaterials for Regenerative Medicine: MRS Proceedings Volume 1235*, Warrendale, PA, 2010.

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[84] S. K. Bhatia, "Development of Current and Next-Generation Biomedical Materials," *Proceedings of the American Institute of Chemical Engineers 2008 Annual Meeting and Centennial Celebration*, Philadelphia, PA, November 2008, 373e.

[85] S. K. Bhatia, S. D. Arthur, H. K. Chenault, G. D. Figuly, S. L. Haynie, G. K. Kodokian, "Polysaccharide-Based Tissue Adhesives for Closure of Surgical Wounds," *Proceedings of the American Institute of Chemical Engineers 2008 Annual Meeting and Centennial Celebration*, Philadelphia, PA, November 2008, 207d.

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[91] S. K. Bhatia, D. A. Hammer, "A Shear Threshold for Rolling Adhesion of Particles to Bioreactive Surfaces," *Proceedings of the IEEE 28th Annual Northeast Bioengineering Conference*, Philadelphia, PA, April 2002, 117-118.

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PRESENTATIONS:

Invited Lectures:

[1] University of Delaware, Horn Entrepreneurship, Delaware Innovation Fellows, "Acceptance and Resistance to Innovation," Newark, DE, May 2019.

[2] University of Delaware, Student-Athlete Advisory Committee, "The Joy of Engineering Practice: Life as an Engineer in Industry and Academia," Newark, DE, April 2019.

[3] University of Pennsylvania, Bioengineering Graduate Symposium, "Bioengineering to Alleviate the Global Burden of Disease," Philadelphia, PA, January 2019.

[4] Rowan University, "Novel Biomaterials for Wound Closure: Tissue Adhesives from Natural and Synthetic Polymers," Glassboro, NJ, July 2018.

[5] Kent School, "Engineering to Alleviate the Global Burden of Disease," Kent, CT, May 2017.

[6] Air Liquide, "Engineering and the Global Burden of Disease," Newark, DE, June 2016.

[7] American Institute of Chemical Engineers, Mid-Atlantic Regional Conference, Keynote Speaker, "Biochemical and Biomolecular Engineering to Alleviate the Global Burden of Disease," Newark, DE, April 2016.

[8] Becton Dickinson Biosciences, Women's Initiative Network, "The Joy of Engineering Practice: Life as an Engineer in Industry and Academia," Bedford, MA, July 2015.

[9] University of Delaware, Department of Biological Sciences, Convocation Keynote Speaker, "Why Study the Life Sciences?" Newark, DE, May 2015.

[10] Berklee College of Music, Institute for Creative Entrepreneurship, "Resilience," Boston, MA, March 2015.

[11] Harvard University, Scientista Chapter, "Bioengineering in Industry and Academia," Cambridge, MA, November 2014.

[12] Kent School, Annual Pre-Engineering Lecture, "Life as a Bioengineer in Industry and Academia: Biomaterials Development for the Real World," Kent, CT, October 2014.

[13] Harvard University, Harvard US-India Initiative, "Naturally-Derived Biomaterials for International Development," Cambridge, MA, September 2014.

[14] Widener University, Undergraduate Research Symposium, Keynote Speaker, "Life as a Bioengineer in Industry and Academia: Biomaterials Development for the Real World," Chester, PA, September 2014.

[15] University of Delaware, Department of Chemical Engineering, Centennial Celebration, "Biochemical and Biomolecular Engineering to Alleviate the Global Burden of Disease," Newark, DE, September 2014.

[16] National Institute of Standards and Technology, Summer Undergraduate Research Fellowship, "Naturally-Derived Biomaterials and Medical Devices," Gaithersburg, MD, June 2014.

[17] Institute of Medicine (IOM)/United States Department of Health and Human Services (HHS)/Center for Medicare & Medicaid Services (CMS), Health Datapalooza, "Strong Correlation… Good Enough?" Washington, DC, June 2014.

[18] Anne Arundel Community College, National Science Foundation (NSF) Engineering Scholars Program, Graduation Keynote Speaker, "What Does It Mean to Be An Engineer?" Arnold, MD, May 2014.

[19] University of Delaware, Scientista Chapter, "Talk Nerdy To Me: Careers in STEM and How They Evolve," Newark, DE, May 2014.

[20] University of Pennsylvania, Science and Technology Wing, "Bioengineering in Industry and Academia," Philadelphia, PA, April 2014.

[21] Harvard University, Office of Career Services, "MD-PhD and Combined Degrees," Cambridge, MA, April 2014.

[22] University of Maryland Baltimore County, Howard Hughes Medical Institute (HHMI)/Meyerhoff Scholars/NIH MARC U-STAR Programs, "Life as a Bioengineer in Industry and Academia: Biomaterials Development for the Real World," Baltimore, MD, April 2014.

[23] Massachusetts Institute of Technology, Scientista Symposium, "Flavors of STEM," Cambridge, MA, April 2014.

[24] Harvard University, Memorial Church, Morning Prayers, "On Courage," Cambridge, MA, March 2014.

[25] University of Delaware, Biomedical Engineering Society (BMES), "Life as a Bioengineer in Industry and Academia: Biomaterials Development for the Real World," Newark, DE, March 2014.

[26] Harvard University, National Symposium for the Advancement of Women in Science, "Life in Academia," Cambridge, MA, February 2014.

[27] TEDxUNC, "Innovate by Nature," Chapel Hill, NC, February 2014.

[28] University of North Carolina, Biomedical Engineering Club, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Chapel Hill, NC, February 2014.

[29] Harvard University, Latinos in Health Careers Conference, "Natural Biomedical Materials: Innovation for Diverse Communities," Cambridge, MA, February 2014.

[30] Harvard University, National Collegiate Research Conference, "Industry versus Academia," Cambridge, MA, January 2014.

[31] Women of Color STEM Conference and Black Engineer of the Year Awards, Boston Networking Event, "Anyone Can Be an Innovator," Andover, MA, November 2013.

[32] Harvard University, Students for Education Reform, "Recruiting and Retaining Women in STEM Disciplines," Cambridge, MA, October 2013.

[33] Harvard University, Latinos in Health Careers/Society of Latino Engineers and Scientists, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Cambridge, MA, October 2013.

[34] Harvard University, Harvard College Women's Center/Women in Science at Harvard Radcliffe, "Portrayals of Women in STEM," Cambridge, MA, October 2013.

[35] Harvard University, Harvard Africa Business and Investment Club, Panel on African Frontiers: Opportunities for Social Innovation and Entrepreneurship, "Natural Biomedical Materials for Africa: Innovation, Entrepreneurship, & Investment," Cambridge, MA, October 2013.

[36] Fishers High School, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Fishers, IN, October 2013.

[37] Harvard University, Harvard Developers for Development, "Biomaterials and Medical Devices for International Development," Cambridge, MA, October 2013.

[38] Harvard University, Harvard Premedical Society, Talk to the Experts, "Bioactive Devices: Uniting Form with Function," Cambridge, MA, October 2013.

[39] Harvard University, Memorial Church, Morning Prayers, "Inscriptions," Cambridge, MA, October 2013.

[40] Harvard University, Adams House, Senior Common Room, "Natural Biomaterials: The Correspondence of Living Structures," Cambridge, MA, October 2013.

[41] Massachusetts Institute of Technology, MIT Online Science Technology and Engineering Community (MOSTEC), "Evolution of Medical Device Technologies to Match the Evolution of the Human Body," Cambridge, MA, September 2013.

[42] Tufts University, School of Medicine, Global Health Interest Group, "Medical Devices and Biomaterials for Global Health," Boston, MA, September 2013.

[43] Massachusetts Institute of Technology, International Development House, "Natural Biomaterials for International Development," Cambridge, MA, September 2013.

[44] Oklahoma State University, Department of Chemistry, "Natural Biomaterials for Tissue Repair, Reconstruction, and Regeneration," Stillwater, OK, September 2013.

[45] National Science Foundation, Alliances for Graduate Education and the Professoriate PROMISE 10th Anniversary Celebration, Distinguished Guest Speaker, "Academic Leadership and Global Influence," Baltimore, MD, August 2013.

[46] American Institute of Chemical Engineers, National Webinar, "Chemical Engineers as Biomedical Innovators," Cambridge, MA, August 2013.

[47] Harvard University, Program for Research in Science and Engineering (PRISE) Faculty Chat, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Cambridge, MA, August 2013.

[48] Harvard University, Summer School Professional Development Series, "Building Your Harvard Network," Cambridge, MA, August 2013.

[49] Massachusetts Institute of Technology, LeadAmerica Engineering and Technology Conference, "Biomaterials and Self-Assembled Tissues," Cambridge, MA, July 2013.

[50] Harvard University, School of Engineering and Applied Sciences, Pre-Collegiate Program, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Cambridge, MA, July 2013.

[51] Massachusetts Institute of Technology, LeadAmerica Engineering and Technology Conference, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Cambridge, MA, June 2013.

[52] Kent School, Summer Educational Experience at Kent (SEEK 3) on Grand Challenges for Global Development, Keynote Speaker, "Do Engineers Make a Difference?" Kent, CT, June 2013.

[53] W. L. Gore & Associates, Medical Products Division, "Medical Devices and Biomaterials for Global Healthcare: Leveraging Bio-Based Polymers," Newark, DE, June 2013.

[54] Harvard University, Master of Liberal Arts Graduation Ceremony, 362nd Commencement Speaker, "The Power of the Unconventional," Cambridge, MA, May 2013.

[55] National Science Foundation, Rocky Mountain Science and Sustainability Network Academy, "Renewable Materials as Biomedical Materials," Jackson Hole, WY, May 2013.

[56] University of Mauritius, Centre of Excellence for Biomedical and Biomaterials Research/Common Market for Eastern and Southern Africa, Workshop on Setting Up a Bio-Based Industry in Mauritius, Keynote Speaker, "Medical Devices and Biomaterials for Mauritius: Leveraging Naturally-Derived Polymers," Reduit, Mauritius, May 2013.

[57] Harvard University, Harvard Premedical Society, Keynote Speaker, "The Joy of Biomedical Research: Life as a Physician-Scientist in Industry and Academia," Cambridge, MA, May 2013.

[58] Harvard University, The Harvard Undergraduate Research Journal, "Anyone Can Be an Innovator," Cambridge, MA, May 2013.

[59] Johns Hopkins University, The Triple Helix, "Biomaterials for Global Health," Baltimore, MD, April 2013.

[60] Harvard University, Cabot House Speaker Series, "Life as a Bioengineer in Industry and Academia," Cambridge, MA, April 2013.

[61] Massachusetts Institute of Technology, MIT Global Poverty Initiative/MIT GlobeMed/MIT Biology Undergraduate Student Association, "Biomaterials in the Developing World," Cambridge, MA, April 2013.

[62] Loyola University Maryland, Scientista Foundation, "Office Hours with Sujata Bhatia," Baltimore, MD, April 2013.

[63] Harvard University, John F. Kennedy School of Government, International and Global Affairs Course on Political Economy of Innovation for Sustainability, "Nanotechnology for Clinical Applications," Cambridge, MA, April 2013.

[64] Harvard University, John F. Kennedy School of Government, International and Global Affairs Course on Political Economy of Innovation for Sustainability, "Biopolymers for Global Healthcare," Cambridge, MA, April 2013.

[65] Bells University of Technology, West African Health Technology Symposium 2013: Biomedical Engineering Technology in West Africa – The Nigerian Experience, "Medical Devices and Biomaterials for West Africa: Leveraging Naturally-Derived Polymers," Ota, Nigeria, April 2013.

[66] Tufts University, Institute for Global Leadership and Synaptic Scholars, Tufts Idea Exchange (TEX), "Sustainable Materials as Biomedical Materials in the Developed and Developing World," Medford, MA, April 2013.

[67] Scientista Foundation, "Office Hours with Sujata Bhatia," Cambridge, MA, April 2013.

[68] Harvard University, Adams House: Schmoozing with the Stars, "Life as a Bioengineer in Industry and Academia," Cambridge, MA, April 2013.

[69] Duke University, Global Health Week, "Biomaterials for Global Health," Durham, NC, April 2013.

[70] Oklahoma State University, Department of Chemistry, "Nanotechnology for Drug Delivery," Stillwater, OK, April 2013.

[71] Tufts University, Scientista Foundation, "A Letter to My Younger Self," Medford, MA, April 2013.

[72] Georgetown University, The Triple Helix, "Biomaterials for Global Healthcare," Washington, DC, March 2013.

[73] University of Pennsylvania, School of Engineering and Applied Sciences, Science and Technology Wing/Women in Computer Science, "Innovation in Bioengineering Education and Practice," Philadelphia, PA, March 2013.

[74] University of Delaware, Osher Lifelong Learning Institute, "What Darwin Didn't Know: Evolution of Medical Device Technologies to Match the Evolution of the Human Body," Wilmington, DE, March 2013.

[75] Harvard University, Administrative Fellowship Program, "The Joy of Engineering Practice: Life as a Bioengineer at Harvard," Cambridge, MA, February 2013.

[76] Harvard University, Harvard Project for Asian and International Relations 2013 Conference, East Meets West: Sustainable Development in the 21st Century, "Medical Devices and Biomaterials for the Developing World," Cambridge, MA, February 2013.

[77] American Association for the Advancement of Science, The Triple Helix 6th Annual Conference and Leadership Summit, "Medical Devices and Biomaterials for Global Healthcare: Leveraging Naturally-Derived Polymers," Cambridge, MA, February 2013.

[78] United States Department of State, Networks of Diasporas in Engineering and Sciences (NODES), "Women in STEM Diaspora Networks," Boston, MA, February 2013.

[79] Harvard University, School of Engineering and Applied Sciences, Professional Development Seminar, "Life as a Bioengineer in Industry and Academia: Biomaterials Development for the Real World," Cambridge, MA, February 2013.

[80] Harvard University, School of Engineering and Applied Sciences, Sophomore Forum, "What is Bioengineering?" Cambridge, MA, February 2013.

[81] Jomo Kenyatta University of Agriculture and Technology, Inaugural International Biopolymer Workshop, Plenary Lecture, "Medical Devices and Biomaterials for Kenya: Leveraging Naturally-Derived Polymers," Nairobi, Kenya, January 2013.

[82] Harvard University, National Collegiate Research Conference, "Fellowships for Graduate Studies in Science and Engineering," Cambridge, MA, January 2013.

[83] American Institute of Chemical Engineers, Virtual Local Section, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Cambridge, MA, January 2013.

[84] University of Texas Southwestern Medical Center, 2nd Annual Global Health Symposium: Adopting Technology in Global Health, "Medical Devices and Biomaterials for the Developing World: Leveraging Naturally-Derived Polymers," Dallas, TX, January 2013.

[85] Christiana High School, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Newark, DE, January 2013.

[86] David Posnack Jewish Day School, Pre-Medical Society, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Davie, FL, January 2013.

[87] Harvard University, Harvard Thinks Healthcare: TED Talks, "Engineering for Medicine: Natural Materials for Healing Wounds," Cambridge, MA, December 2012.

[88] Harvard University, Scientista Foundation and Harvard Undergraduate Women in Business, "A Beautiful Nexus: Science, Tech, and Business," Cambridge, MA, November 2012.

[89] Harvard University, Environmental Science and Public Policy Course in Biotechnology, Sustainability, and Public Policy, "Bio-Based Polymers for Medical Applications in the Developing World," Cambridge, MA, November 2012.

[90] Harvard Medical School, Office of Faculty Affairs, "Faculty Development at Harvard Medical School: Advancing Our Mission, Achieving Our Dreams," Boston, MA, November 2012.

[91] Harvard University, Women in Physics, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Cambridge, MA, October 2012.

[92] Harvard University, Zeta Phi Chapter of Delta Gamma and Harvard College Women's Center, "Women in Science and Engineering," Cambridge, MA, October 2012.

[93] University of Rhode Island, "Electrically Conductive Hydrogels Containing Carbon Nanobrushes for Tissue Regeneration," Kingston, RI, October 2012.

[94] Boston Scientific Corporation, China Medical Device Evaluator Training, "Change Management for Medical Devices," Boston, MA, October 2012.

[95] Boston Scientific Corporation, China Medical Device Evaluator Training, "FDA Advisory Committees," Boston, MA, October 2012.

[96] BioEnvironmental Polymer Society, 20th Annual Meeting, "Bio-Based Polymers as Biomedical Materials," Denton, TX, September 2012.

[97] Harvard University, 25th Annual Harvard-Radcliffe Women's Leadership Conference, "Women in Science," Cambridge, MA, August 2012.

[98] Harvard University, Advising Programs Office, Peer Advising Fellows, "Advising in the Harvard School of Engineering and Applied Sciences," Cambridge, MA, August 2012.

[99] Harvard University, Advising Programs Office, Proctor Orientation, "Building a Strong Advising Relationship," Cambridge, MA, August 2012.

[100] Harvard University, Program for Research in Science and Engineering (PRISE) Faculty Chat, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Cambridge, MA, July 2012.

[101] Massachusetts Institute of Technology, LeadAmerica Engineering and Technology Conference, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Cambridge, MA, July 2012.

[102] Harvard University, School of Engineering and Applied Sciences, Pre-Collegiate Program, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Cambridge, MA, July 2012.

[103] Massachusetts Institute of Technology, LeadAmerica Engineering and Technology Conference, "Biomaterials and Self-Assembled Tissues," Cambridge, MA, June 2012.

[104] Harvard University, John F. Kennedy School of Government, International Conference on Technology and Innovation for Global Development, "Bio-Based Polymers for Medical Applications in the Developing World," Cambridge, MA, June 2012.

[105] University of Massachusetts Amherst, Institute for Cellular Engineering (ICE) Summer Seminar, "Bio-Based Materials as Biomedical Materials," Amherst, MA, June 2012.

[106] University of Massachusetts Amherst, National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship (IGERT) Summer Seminar, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Amherst, MA, June 2012.

[107] State University of New York, Downstate Medical Center, "Bio-Based Materials as Biomedical Materials," Brooklyn, NY, May 2012.

[108] Phi Beta Kappa, Alpha Iota of Massachusetts at Harvard College, Keynote Speaker, "Medical Devices and Biomaterials for the Developing World," Cambridge, MA, April 2012.

[109] Harvard University, Inaugural Conference of the Harvard Premedical Society, "A Day in the Life of a Physician-Researcher," Cambridge, MA, April 2012.

[110] Harvard University, Department of Physics, Self-Assembly Science Week, "Biomaterials and Self-Assembled Tissues," Cambridge, MA, April 2012.

[111] University of Pennsylvania, School of Engineering and Applied Sciences, Science and Technology Wing, "Innovation in Bioengineering Practice," Philadelphia, PA, March 2012.

[112] Harvard University, School of Engineering and Applied Sciences, Professional Development Seminar, "The Joy of Engineering Practice: Life as a Bioengineer in Industry and Academia," Cambridge, MA, January 2012.

[113] University of Massachusetts Lowell, "Incorporating a Medical Perspective into Chemical and Biological Engineering Design," Lowell, MA, December 2011.

[114] Harvard University, School of Engineering and Applied Sciences, Topics in Bioengineering Seminar, "Novel Biomaterials for Wound Closure: Tissue Adhesives from Natural and Synthetic Polymers," Cambridge, MA, October 2011.

[115] Harvard University, Dynamo Science Group, "Innovation in Engineering Practice," Cambridge, MA, October 2011.

[116] Harvard University, Society for Biological Engineering, "Polysaccharide-Based Glues for Wound Closure: An Example of Biomedical Product Development in Industry," Cambridge, MA, September 2011.

[117] Tufts University, Department of Chemical and Biological Engineering, "Process and Product Design," Medford, MA, July 2011.

[118] Drexel University, Department of Biomedical Engineering, "Tissue Engineering for Clinical Applications," Philadelphia, PA, May 2011.

[119] University of Pennsylvania, School of Engineering and Applied Sciences, Science and Technology Wing, "Biomaterials for Clinical Applications," Philadelphia, PA, April 2011.

[120] Harvard University, School of Engineering and Applied Sciences, "Drug Delivery: Systems and Mathematical Models," Cambridge, MA, April 2011.

[121] American Chemical Society, Rhode Island Section, "Novel Biomaterials for Wound Closure: Tissue Adhesives from Natural and Synthetic Polymers," Warwick, RI, December 2010.

[122] Rowan University, Department of Mechanical Engineering, "Engineering from the Bench to the Bedside: Natural Biomaterials for Tissue Repair," Glassboro, NJ, December 2010.

[123] University of Delaware, College of Engineering, "Career Paths for Chemical Engineers," Newark, DE, September 2010.

[124] University of Massachusetts Amherst, Institute for Cellular Engineering (ICE) Summer Seminar, "Omega-3 Fatty Acids from Yeast: Biochemical Engineering for Biomedical Applications," Amherst, MA, July 2010.

[125] University of Delaware, 23rd Annual Multi-Ethnic Career Development Conference, "Preparing for Graduate School," Newark, DE, March 2010.

[126] University of Massachusetts Amherst, Institute for Cellular Engineering (ICE) Summer Seminar, "Engineering from the Bench to the Bedside: Natural Biomaterials for Tissue Repair," Amherst, MA, July 2009.

[127] University of Delaware, College of Engineering, "Career Paths for Chemical Engineers," Newark, DE, September 2009.

[128] American Association of University Women, Makefield Section Girls' Recognition Reception, Keynote Speaker, "The Power of Ideas: Why I Became a Scientist," Yardley, PA, May 2009.

[129] Rowan University, Department of Chemical Engineering, "Engineering from the Bench to the Bedside: Natural Biomaterials for Tissue Repair," Glassboro, NJ, May 2009.

[130] University of Delaware, 22nd Annual Multi-Ethnic Career Development Conference, "Preparing for Graduate School," Newark, DE, March 2009.

[131] Society of Plastics Engineers, Philadelphia Section Conference on Innovations in Medical Polymers, "Tissue Adhesives for Wound Closure," Claymont, DE, February 2009.

[132] University of Delaware, Department of Chemical Engineering, "Natural Biomaterials for Tissue Repair and Reconstruction," Newark, DE, January 2009.

[133] Gordon Research Conference on Macromolecular Materials, "Novel Biomaterials for Wound Closure: Tissue Adhesives from Natural and Synthetic Polymers," Ventura, CA, January 2009.

[134] Chestnut Hill College, Expand Your Horizons Mini-Conference for Girls, Keynote Speaker, "The Power of Ideas: Why I Became a Scientist," Philadelphia, PA, October 2008.

[135] University of Delaware, College of Engineering, "Career Paths for Chemical Engineers," Newark, DE, September 2008.

[136] University of Pennsylvania, Innovative Technology Experiences for Students and Teachers (ITEST) Summer Seminar, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Philadelphia, PA, August 2008.

[137] University of Massachusetts Amherst, National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship (IGERT) Summer Seminar, "Medical Biomaterials: Tissue Sealant Technology at DuPont," Amherst, MA, July 2008.

[138] National Agriscience Teacher Ambassador Academy, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Wilmington, DE, July 2008.

[139] University of Delaware, College of Engineering, National Engineers Week, "Career Paths for Chemical Engineers," Newark, DE, February 2008.

[140] George Washington University, National Science Olympiad Invitational, Keynote Speaker, "Making Miracles Happen: Why I Became a Scientist," Washington, DC, January 2008.

[141] University of Delaware, National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship (IGERT) Fall Seminar, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Newark, DE, October 2007.

[142] National Agriscience Teacher Ambassador Academy, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Wilmington, DE, July 2007.

[143] Howard Hughes Medical Institute (HHMI) Research Scholars Program, "Preparing for Graduate and Professional Schools," Newark, DE, June 2007.

[144] University of Delaware, College of Engineering, National Engineers Week, "Career Paths for Chemical Engineers," Newark, DE, February 2007.

[145] University of Delaware, National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship (IGERT) Fall Seminar, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Newark, DE, October 2006.

[146] Howard Hughes Medical Institute (HHMI) Research Scholars Program, "Preparing for Graduate and Professional Schools," Newark, DE, July 2006.

[147] National Agriscience Teacher Ambassador Academy, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Wilmington, DE, July 2006.

[148] Charter School of Wilmington, "Medical Biomaterials: DuPont's New ActaMax™ Surgical Sealant," Wilmington, DE, March 2006.

[149] University of Delaware, College of Engineering, National Engineers Week, "Career Paths for Chemical Engineers," Newark, DE, February 2006.

[150] University of Delaware, National Science Foundation (NSF) Integrative Graduate Education and Research Traineeship (IGERT) Fall Seminar, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Newark, DE, November 2005.

[151] Howard Hughes Medical Institute (HHMI) Research Scholars Program, "Preparing for Graduate and Professional Schools," Newark, DE, August 2005.

[152] Charter School of Wilmington, "Medical Biomaterials: From Polymer Implants to Engineered Tissues," Wilmington, DE, March 2005.

[153] Howard Hughes Medical Institute (HHMI) Research Scholars Program, "Preparing for Graduate and Professional Schools," Newark, DE, August 2004.

[154] University of Pennsylvania, Department of Genetics, "Leukocyte Adhesion Deficiency Types I and II," Philadelphia, PA, May 2003.

[155] DuPont Central Research and Development, Biochemical Science and Engineering Seminar, "Engineering in Medicine: Insights Into Cell Adhesion During the Immune Response," Wilmington, DE, March 2003.

[156] University of Pennsylvania, Institute for Medicine and Engineering, "Two-Receptor Adhesive Dynamic Simulations of Leukocyte Recruitment," Philadelphia, PA, November 2002.

[157] University of Pennsylvania, Medical Scientist Training Program (MSTP) Grand Rounds, "New Therapeutic Avenues for Crohn's Disease," Philadelphia, PA, October 2002.

Conference Presentations:

[158] A. Tracy, S. K. Bhatia, "Bio-based Materials as Applicable, Accessible, and Affordable Healthcare Solutions: A Case Study on Nigeria," Harvard University Extension School, Biotechnology Program Thesis Symposium, Cambridge, MA, May 2015.

[159] A. Halleck, S. K. Bhatia, "Compositional Effects on Performance Parameters of Carbon Nanobrush Impregnated Pluronic Hydrogels for Tissue Engineering and Drug Delivery," Harvard University Extension School, Biotechnology Program Thesis Symposium, Cambridge, MA, May 2014.

[160] J. Kameniku, S. K. Bhatia, "Characterization of Compressibility in Alginate Microspheres," IEEE 40th Annual Northeast Bioengineering Conference, Boston, MA, April 2014.

[161] J. A. Mulligan, S. K. Bhatia, "Hydrogel Composites as an Injectable Platform for Cardiac Tissue Regeneration," Harvard School of Engineering and Applied Sciences Senior Design Fair, Cambridge, MA, December 2013.

[162] D. Liu, S. K. Bhatia, "Sequential Release of Chemotherapeutics in Poloxamer Hydrogels," Harvard School of Engineering and Applied Sciences Senior Design Fair, Cambridge, MA, December 2013.

[163] S. K. Bhatia, "Medical Devices and Biomaterials for Global Healthcare: Leveraging Bio-Based Polymers," National Academy of Engineering/National Academy of Sciences/Institute of Medicine 2013 National Academies Keck Futures Initiative, Irvine, CA, November 2013.

[164] S. K. Bhatia, "An Introductory Short Course in Biochemical and Biomedical Engineering for Undergraduate Students," National Academy of Engineering 2013 Frontiers of Engineering Education, Irvine, CA, October 2013.

[165] T. Raphel, S. K. Bhatia, "Characterization and Optimization of Alginate Microspheres," Harvard Program for Research in Science and Engineering, Cambridge, MA, August 2013.

[166] J. Lee, S. K. Bhatia, "Mechanical Properties and Drug Release Kinetics of Electrically Conductive Hydrogels," Harvard Program for Research in Science and Engineering, Cambridge, MA, August 2013.

[167] S. R. Seetharam, J. G. Fernandez, D. E. Ingber, S. K. Bhatia, "Development and Design of a Sprayable Chitosan-Based Tissue Adhesive," Harvard University 4th Annual Biotechnology Symposium, Cambridge, MA, May 2013.

[168] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Tissue Scaffolding," Harvard Bioengineering Expo, Cambridge, MA, May 2013 (Honorable Mention in Student Poster Competition)

[169] K. K. Aung, S. K. Bhatia, "The Ethical Implications of Bonus Payments for Medicare Advantage Plans," Harvard Bioengineering Expo, Cambridge, MA, May 2013.

[170] T. Kiymaz, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Chondrocyte Proliferation," Harvard Bioengineering Expo, Cambridge, MA, May 2013.

[171] S. P. Kishore, S. K. Bhatia, "Engineering and the Prevention of Global Chronic Disease: The Ethical Duty of Engineers to Protect The Public Health," Brooklyn, NY, April 2013.

[172] W. H. Marks, S. K. Bhatia, "How Translatable are Stem Cell Technologies to Low-Resource Settings?" 7th International Conference on Ethical Issues in Biomedical Engineering, Brooklyn, NY, April 2013.

[173] K. K. Aung, S. K. Bhatia, "The Ethical Implications of Bonus Payments for Medicare Advantage Plans," 7th International Conference on Ethical Issues in Biomedical Engineering, Brooklyn, NY, April 2013.

[174] W. H. Marks, S. K. Bhatia, "The Need for a Bioengineering Code of Ethics that Incorporates Both Biochemical and Biomedical Engineering," 7th International Conference on Ethical Issues in Biomedical Engineering, Brooklyn, NY, April 2013.

[175] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes as an Effective Biomaterial for Tissue Regeneration," 2013 Society for Biomaterials Annual Conference, Boston, MA, April 2013.

[176] C. Ragolta, W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "A Living Band-Aid: Gels for Tissue Engineering," Sigma Xi Student Research Showcase, Research Triangle Park, NC, March 2013. (Second Place in Undergraduate Division for Engineering, Math, Computer Science, Physics & Astronomy)

[177] T. Kiymaz, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Chondrocyte Proliferation," New England Science Symposium, Boston, MA, March 2013.

[178] C. Ragolta, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Mechanical Properties of Hydrogel Composites with Carbon Nanobrushes," MIT Health and Wellness Conference, Cambridge, MA, February 2013.

[179] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Carbon Nanobrushes Embedded Within Hydrogel Composites for Tissue Engineering," American Society of Mechanical Engineers (ASME) 2nd Global Congress on Nanoengineering for Medicine and Biology, Boston, MA, February 2013.

[180] C. Ragolta, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Mechanical Properties of Hydrogel Composites with Carbon Nanobrushes," National Collegiate Research Conference, Cambridge, MA, January 2013.

[181] G. O. Abiola, S. K. Bhatia, "Design of Naturally Derived Hydrogels for Growth and Regeneration of Neuronal Cells," National Collegiate Research Conference, Cambridge, MA, January 2013.

[182] T. Kiymaz, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Chondrocyte Proliferation," National Collegiate Research Conference, Cambridge, MA, January 2013.

[183] W. H. Marks, S. K. Bhatia, "Characterization of Hydrogel Composites Containing Carbon Nanobrushes as Novel Biomaterials for Tissue Regeneration," National Collegiate Research Conference, Cambridge, MA, January 2013.

[184] N. Mehandru, B. Sim, A. Perez, A. Chalah, S. K. Bhatia, "An Intelligent, Coupled, and Automated Diagnostic and Multiplexed Drug Delivery Device for Remote Cancer Treatment," King Abdullah University of Science and Technology (KAUST) Winter Enrichment Program, Thuwal, Saudi Arabia, January 2013.

[185] S. Shareef, S. K. Bhatia, "Design of Poloxamer Gel for Cardiac Tissue Engineering, A Continuing Process," Harvard School of Engineering and Applied Sciences Senior Design Fair, Cambridge, MA, December 2012.

[186] N. Mehandru, A. Chalah, S. K. Bhatia, "An Intelligent, Coupled, and Automated Diagnostic and Multiplexed Drug Delivery Device for Remote Cancer Treatment," Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2012.

[187] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes as Tissue Scaffolds," Materials Research Society (MRS) Fall Meeting, Boston, MA, November 2012.

[188] L. A. Rea, N. Khan, M. Misra, A. K. Mohanty, S. K. Bhatia, "Mechanical and Biological Characterization of Corn-Derived Poly-L-Lactic Acid," American Institute of Chemical Engineers 2012 Annual Meeting, Pittsburgh, PA, October 2012.

[189] S. K. Bhatia, "Sustainable Materials as Biomedical Materials: A Short Course for Undergraduate Students," American Institute of Chemical Engineers 2012 Annual Meeting, Pittsburgh, PA, October 2012.

[190] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Design of a Biocompatible Electrically Conductive Composite for Neuroregeneration," American Institute of Chemical Engineers 2012 Annual Meeting, Pittsburgh, PA, October 2012.

[191] N. Mehandru, A. Chalah, S. K. Bhatia, "An Intelligent, Coupled, and Automated Diagnostic and Multiplexed Drug Delivery Device for Next-Generation Cancer Therapy," Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 2012.

[192] S. J. Yim, S. K. Bhatia, "Biological and Mechanical Characterization of Bamboo for Tissue Engineering Applications," Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 2012.

[193] G. O. Abiola, S. C. Yang, G. W. Dombi, W. H. Marks, S. K. Bhatia, "Designing Naturally Derived Hydrogels for Neuronal Tissue," Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 2012.

[194] K. A. Williamson, S. Mirza, W. H. Marks, S. K. Bhatia, "Hydrogels for Optimizing Localized Delivery of Non-steroidal Anti-Inflammatory Drugs," Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 2012.

[195] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Rheological Characterization of Hydrogel Composites Containing Carbon Nanobrushes for Tissue Scaffolding," Biomedical Engineering Society (BMES) Annual Meeting, Atlanta, GA, October 2012.

[196] G. O. Abiola, S. C. Yang, G. W. Dombi, W. H. Marks, S. K. Bhatia, "Design of Naturally Derived Hydrogels for Growth and Regeneration of Neuronal Cells," Frontiers in Pharmaceutical Sciences: Global Perspectives, Kingston, RI, September 2012.

[197] B. Gerberich, S. Joshi, M. Arciprete, S. K. Bhatia, "Dendritic Crystal Patterning for Design of Porous Alginate Microsphere Scaffolds," Frontiers in Pharmaceutical Sciences: Global Perspectives, Kingston, RI, September 2012.

[198] K. A. Williamson, S. Mirza, W. H. Marks, S. K. Bhatia, "Hydrogels for Optimizing Localized Delivery of Non-Steroidal Anti-Inflammatory Drugs," Frontiers in Pharmaceutical Sciences: Global Perspectives, Kingston, RI, September 2012.

[199] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes as Testing Platform for Drug Response," Frontiers in Pharmaceutical Sciences: Global Perspectives, Kingston, RI, September 2012.

[200] B. Gerberich, S. Joshi, M. Arciprete, S. K. Bhatia, "Dendritic Crystal Patterning for Design of Porous Alginate Microspheres," BioEnvironmental Polymer Society 20th Annual Meeting, Denton, TX, September 2012.

[201] M. Misra, M. Schreiber, N. Khan, L. Rea, V. Poursorkhari, S. Vivekanandhan, S. K. Bhatia, A. K. Mohanty, "Electrospun Novel Bionanofibres: Processing, Properties and Applications," Interface 21 International Conference on Composite Interfaces, Kyoto, Japan, August 2012.

[202] G. O. Abiola, S. K. Bhatia, "Design of Naturally Derived Hydrogels for Growth and Regeneration of Neuronal Cells," Harvard Program for Research in Science and Engineering, Cambridge, MA, August 2012.

[203] B. Gerberich, S. K. Bhatia, "Dendritic Crystal Patterning for Tissue Scaffold Engineering," Harvard Program for Research in Science and Engineering, Cambridge, MA, August 2012.

[204] K. A. Williamson, S. K. Bhatia, "Optimizing Ibuprofen Release from Hydrogels," Harvard Program for Research in Science and Engineering, Cambridge, MA, August 2012.

[205] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Potential Uses for Hydrogel Composites Containing Carbon Nanobrushes As A Novel Biomaterial," 2nd International Conference on Smart Materials and Nanotechnology in Engineering, Dubai, UAE, July 2012.

[206] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Interactions of Poloxamer Hydrogel Composites Containing Carbon Nanobrushes With Clinically Relevant Cell Lines," American Society of Mechanical Engineers (ASME) Summer Bioengineering Conference, Fajardo, Puerto Rico, June 2012.

[207] M. Misra, V. Poursorkhabi, M. Schreiber, N. Khan, L. Rea, S. Vivekanandhan, S. K. Bhatia, A. K. Mohanty, "Polymer Nanofibre Processing Through Electrospinning: Their Structure, Properties, and Applications," Polymer Processing Society Americas Conference 2012, Niagara Falls, Canada, May 2012.

[208] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Wound Healing Applications," International Conference on Bioinformatics and Biomedical Engineering, Shanghai, China, May 2012.

[209] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Potential for Hydrogel Composites Containing Carbon Nanobrushes as Stem Cell Scaffolds," Society for Biological Engineering (SBE) International Conference on Stem Cell Engineering, Seattle, WA, May 2012.

[210] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Electrically Conductive, Biocompatible Composite Containing Carbon Nanobrushes for Applications in Neuroregeneration," Society for Biological Engineering (SBE) International Conference on Stem Cell Engineering, Seattle, WA, May 2012.

[211] S. K. Bhatia, "An Introductory Short Course in Biochemical and Biomedical Engineering for Undergraduate Students," Harvard School of Engineering and Applied Sciences Design Fair, Cambridge, MA, May 2012.

[212] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Wound Healing Applications," Harvard School of Engineering and Applied Sciences Design Fair, Cambridge, MA, May 2012.

[213] E. Soliman, S. K. Bhatia, "Design of a Biocompatible Electrically Conductive Composite for Nerve Cell Regeneration," Harvard School of Engineering and Applied Sciences Design Fair, Cambridge, MA, May 2012.

[214] S. K. Bhatia, B. Crane, D. Goligorsky, J. P. Zinter, G.-Y. Wei, "An Introductory Short Course in Design Thinking for Undergraduate and Graduate Students," American Society for Engineering Education Northeast Section Conference, Lowell, MA, April 2012.

[215] S. K. Bhatia, "An Introductory Short Course in Biochemical and Biomedical Engineering for Undergraduate Students," Harvard Bioengineering Expo, Cambridge, MA, April 2012.

[216] O. A. Fatunde, S. K. Bhatia, "Medical Devices and Biomaterials for the Developing World: Technical Solutions and Policy Recommendations," Harvard Bioengineering Expo, Cambridge, MA, April 2012.

[217] L. A. Rea, S. K. Bhatia, "Mechanical Characterization of Corn-Derived Poly-L-Lactic Acid," Harvard Bioengineering Expo, Cambridge, MA, April 2012.

[218] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Potential for Hydrogel Composites Containing Carbon Nanobrushes as Stem Cell Scaffolds," Harvard Bioengineering Expo, Cambridge, MA, April 2012.

[219] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Neuronal Response to Electrically Conductive Composite Containing Carbon Nanobrushes for Nerve Cell Regeneration," Harvard Bioengineering Expo, Cambridge, MA, April 2012.

[220] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Potential for Hydrogel Composites Containing Carbon Nanobrushes as Stem Cell Scaffolds," Harvard Undergraduate Research Symposium, Cambridge, MA, April 2012.

[221] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Neuronal Response to Electrically Conductive Composite Containing Carbon Nanobrushes for Nerve Cell Regeneration," Harvard Undergraduate Research Symposium, Cambridge, MA, April 2012.

[222] S. K. Bhatia, "An Introductory Short Course in Biochemical and Biomedical Engineering for Undergraduate Students," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[223] O. A. Fatunde, S. K. Bhatia, "Medical Devices and Biomaterials for the Developing World: Technical Solutions and Policy Recommendations," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[224] S. R. Seetharam, S. K. Bhatia, "Application of a Mathematical Model for Long Bone Growth," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[225] S. R. Seetharam, S. K. Bhatia, "Derivation and Development of a Mathematical Model for Long Bone Growth," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[226] S. Sahni, S. K. Bhatia, "Risk of Aortic Dissection Due to Aortic Curvature and Malignant Hypertension," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[227] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Electrically Conductive, Biocompatible Composite Containing Carbon Nanobrushes for Applications in Neuroregeneration," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[228] L. A. Rea, S. K. Bhatia, "Mechanical Characterization of Corn-Derived Poly-L-Lactic Acid," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[229] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Translational Potential for Hydrogel Composites Containing Carbon Nanobrushes," IEEE 38th Annual Northeast Bioengineering Conference, Philadelphia, PA, March 2012.

[230] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Wound Healing Applications," Bio-Inspired Engineering International Symposium 2012, Cambridge, MA, January 2012.

[231] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Electrically Conductive, Biocompatible Composite Containing Carbon Nanobrushes for Applications in Neuroregeneration," Bio-Inspired Engineering International Symposium 2012, Cambridge, MA, January 2012.

[232] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Wound Healing Applications," Inaugural National Collegiate Research Conference, Cambridge, MA, January 2012.

[233] E. Soliman, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Electrically Conductive, Biocompatible Composite Containing Carbon Nanobrushes for Applications in Neuroregeneration," Inaugural National Collegiate Research Conference, Cambridge, MA, January 2012.

[234] W. H. Marks, S. C. Yang, G. W. Dombi, S. K. Bhatia, "Hydrogel Composites Containing Carbon Nanobrushes for Wound Healing Applications," Biomedical Engineering Society (BMES)-Society for Physical Regulation in Biology and Medicine (SPRBM) Conference on Cellular and Molecular Bioengineering, San Juan, Puerto Rico, January 2012.

[235] S. K. Bhatia, "A Disease-Centered Approach to Biomaterials Education and Medical Device Design," IEEE Engineering in Medicine and Biology Society (EMBS) Conference, Boston, MA, August 2011.

[236] E. J. Schaefer, I. Asztalos, B. F. Asztalos, K. Horvath, S. K. Bhatia, P. J. Gillies, "Effects of Eicosapentaenoic Acid on Cardiovascular Risk Factors," American Heart Association 2010 Scientific Sessions, Chicago, IL, November 2010.

[237] S. K. Bhatia, S. D. Arthur, H. K. Chenault, G. K. Kodokian, "Cytocompatibility of Dextran-Based Tissue Sealants for Wound Closure," American Institute of Chemical Engineers 2008 Annual Meeting and Centennial Celebration, Philadelphia, PA, November 2008.

[238] S. K. Bhatia, "Development of Current and Next-Generation Biomedical Materials," American Institute of Chemical Engineers 2008 Annual Meeting and Centennial Celebration, Philadelphia, PA, November 2008.

[239] S. K. Bhatia, S. D. Arthur, H. K. Chenault, G. D. Figuly, S. L. Haynie, G. K. Kodokian, "Polysaccharide-Based Tissue Adhesives for Closure of Surgical Wounds," American Institute of Chemical Engineers 2008 Annual Meeting and Centennial Celebration, Philadelphia, PA, November 2008.

[240] S. K. Bhatia, "DuPont ActaMax™ Tissue Sealants for Closure of Surgical Wounds," National Academy of Engineering 2007 Japan-America Frontiers of Engineering, Palo Alto, CA, November 2007.

[241] S. K. Bhatia, "DuPont ActaMax™ Surgical Sealants," National Academy of Engineering 2006 Japan-America Frontiers of Engineering, Tsukuba, Japan, November 2006.

[242] S. K. Bhatia, "DuPont's Efforts in Small-Diameter Vascular Grafts," National Academy of Sciences Roundtable on Biomedical Engineering Materials and Applications, Woods Hole, MA, July 2005.

[243] S. K. Bhatia, M. R. King, D. A. Hammer, "Dynamic Simulations of Leukocyte Recruitment: The State Diagram for Cell Adhesion Mediated by Two Receptors," IEEE 29th Annual Northeast Bioengineering Conference, Newark, NJ, March 2003.

[244] S. K. Bhatia, M. R. King, D. A. Hammer, "Dynamic Simulations of Leukocyte Recruitment Demonstrate Synergistic Roles for Selectins and Integrins," 2003 Days of Molecular Medicine, San Diego, CA, March 2003.

[245] S. K. Bhatia, D. A. Hammer, "Influence of Receptor and Ligand Density on the Shear Threshold Effect for Carbohydrate-Coated Particles on L-selectin," American Chemical Society/American Institute of Chemical Engineers Joint Graduate Poster Session, Philadelphia, PA, January 2003 (Catalyx Technologies Award for Best Poster).

[246] S. K. Bhatia, M. R. King, D. A. Hammer, "Dynamic Simulations of Neutrophil Recruitment Demonstrate Synergistic Roles for Selctins and Integrins," American Society of Hematology Meeting, Philadelphia, PA, November 2002.

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UNIVERSITY TEACHING:

University of Delaware:

2019 Winter – University Seminar 467/667 (UNIV 467/667): Contemplation and Technological Change
2018 Spring – Chemical Engineering 432 (CHEG 432): Chemical Process Analysis
2018 Spring – Biomedical Engineering 420 (BMEG 420): Biological Transport Phenomena
2018 Spring – Honors 292 (HONR 292): Grand Challenges for Innovation and Society
2018 Winter – Biomedical Engineering 420 (BMEG 420): Biological Transport Phenomena
2017 Spring – Chemical Engineering 432 (CHEG 432): Chemical Process Analysis
2017 Spring – Biomedical Engineering 420 (BMEG 420): Biological Transport Phenomena
2017 Spring – Biomedical Engineering 341 (BMEG 341): Biomedical Experimental Design & Analysis
2017 Spring – Honors 292 (HONR 292): Grand Challenges for Innovation and Society
2017 Winter – Biomedical Engineering 420 (BMEG 420): Biological Transport Phenomena
2016 Fall – Biomedical Engineering 211 (BMEG 211): Cell and Tissue Engineering Lab
2016 Fall – Biomedical Engineering 450 (BMEG 450): Biomedical Engineering Design
2016 Spring – Chemical Engineering 432 (CHEG 432): Chemical Process Analysis
2016 Spring – Biomedical Engineering 211 (BMEG 211): Cell and Tissue Engineering Lab
2016 Spring – Biomedical Engineering 420 (BMEG 420): Biological Transport Phenomena

Harvard University:

2018 Summer – Engineering Sciences 135 (ENSC S-135): Biochemical Engineering and Synthetic Life
2018 Summer – Engineering Sciences 107 (ENSC S-107): Acceptance and Resistance to Innovation
2018 Spring – Biotechnology 225 (BIOT E-225): Biomedical Product Development
2017 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications

2017 Summer – Engineering Sciences 135 (ENSC S-135): Biochemical Engineering and Synthetic Life
2017 Spring – Biotechnology 225 (BIOT E-225): Biomedical Product Development
2016 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications
2016 Summer – Engineering Sciences 135 (ENSC S-135): Biochemical Engineering and Synthetic Life
2016 Summer – Engineering Sciences 132 (ENSC S-132): Tissue Engineering for Clinical Applications
2016 Spring – Biotechnology 225 (BIOT E-225): Biomedical Product Development
2015 Fall – Engineering Sciences 53 (ES 53): Quantitative Physiology as a Basis for Bioengineering
2015 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications
2015 Summer – Engineering Sciences 132 (ENSC S-132): Tissue Engineering for Clinical Applications
2015 Spring – Engineering Sciences 100hf (ES 100hf): Engineering Design Projects
2015 Spring – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2015 Spring – Biotechnology 225 (BIOT E-225): Biomedical Product Development
2014 Fall – Engineering Sciences 100hf (ES 100hf): Engineering Design Projects
2014 Fall – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2014 Fall – Engineering Sciences 53 (ES 53): Quantitative Physiology as a Basis for Bioengineering
2014 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications
2014 Summer – Engineering Sciences 132 (ENSC S-132): Tissue Engineering for Clinical Applications
2014 Spring – Engineering Sciences 221 (ES 221): Drug Delivery
2014 Spring – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2014 Spring – Biotechnology 225 (BIOT E-225): Biomedical Product Development
2013 Fall – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2013 Fall – Engineering Sciences 53 (ES 53): Quantitative Physiology as a Basis for Bioengineering
2013 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications
2013 Summer – Engineering Sciences 132 (ENSC S-132): Tissue Engineering for Clinical Applications
2013 Spring – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2013 Spring – Engineering Sciences 1 (ES 1): Introduction to Engineering Sciences
2012 Fall – Biomedical Engineering 91r (BE 91r): Supervised Reading and Research
2012 Fall – Engineering Sciences 53 (ES 53): Quantitative Physiology as a Basis for Bioengineering
2012 Fall – Engineering Sciences 132 (ENSC E-132): Tissue Engineering for Clinical Applications
2012 Summer – Engineering Sciences 132 (ENSC S-132): Tissue Engineering for Clinical Applications
2012 Spring – Engineering Sciences 100hf (ES 100hf): Engineering Design Projects
2012 Spring – Engineering Sciences 1 (ES 1): Introduction to Engineering Sciences
2012 Winter – Sustainable Materials as Biomedical Materials
2011 Fall – Engineering Sciences 100hf (ES 100hf): Engineering Design Projects
2011 Fall – Engineering Sciences 53 (ES 53): Quantitative Physiology as a Basis for Bioengineering

Tufts University:
2013 Spring – Chemical and Biological Engineering 60 (ChBE 60): Product and Process Design
2012 Fall – Engineering 69 (EN 69): Introduction to Chemical and Biological Engineering
2012 Spring – Chemical and Biological Engineering 60 (ChBE 60): Product and Process Design
2011 Fall – Engineering 69 (EN 69): Introduction to Chemical and Biological Engineering

University of Delaware:
2011 Spring – Chemical Engineering 620 (CHEG 620): Biochemical Engineering
2010 Fall – Engineering 101 (EGGG 101): Introduction to Engineering
2010 Fall – Chemical Engineering 667 (CHEG 667): Biomaterials for Gene and Drug Delivery
2010 Spring – Chemical Engineering 620 (CHEG 620): Biochemical Engineering
2009 Fall – Chemical Engineering 620 (CHEG 620): Biochemical Engineering

UNIVERSITY SERVICE:
2017 – Faculty Convener for Grand Challenges Scholars Program, University of Delaware
2017 – Committee on Technology and Innovation Certificate Program, College of Engineering, University of Delaware
2014 – Judge for Harvard Deans' Design Challenge
2013 – 2016 – Senior Common Room in Mather House, Harvard College
2013 – 2016 – Senior Common Room in Adams House, Harvard College
2013 – 2016 – SEAS Concentrators Task Force for Allston, Harvard University
2013 – 2016 – Education Policy Committee, Harvard School of Engineering and Applied Sciences
2013 – 2016 – Faculty Advisor for Harvard Premedical Society, Healthcare Entrepreneurship Bootcamp
2013 – 2016 – Faculty Panelist and Judge for National Collegiate Research Conference, Harvard College Undergraduate Research Association
2013 – 2016 – Advisory Board for Biotechnology Graduate Program, Harvard Extension School
2013 – 2016 – Committee for the Concerns of Women, Harvard University

2013 – 2016 – Women in Leadership, Harvard School of Public Health
2012 – 2016 – Proposal Review Committee, Harvard College Research Program
2012 – 2016 – Proposal Review Committee for Nectar Funds, Harvard School of Engineering and Applied Sciences
2012 – 2016 – Faculty Advisor for Harvard University Order of the Engineer
2012 – 2016 – Faculty Advisor for Harvard Developers for Development
- 2013 Judge for Harvard College Developers for Development/Harvard Kennedy School Tech4Change, Americas Datafest Hackathon

2011 – 2016 – Faculty Associate and Senior Common Room in Leverett House, Harvard College
2011 – 2016 – Non-Resident Tutor in Currier House, Harvard College
2011 – 2016 – Undergraduate Engineering Committee, Harvard School of Engineering and Applied Sciences
2011 – 2016 – Undergraduate Engineering Sub-Committee, Harvard School of Engineering and Applied Sciences
2011 – 2016 – Biomedical Engineering Committee on Undergraduate Studies, Harvard School of Engineering and Applied Sciences
2011 – 2016 – Engineering Design Committee, Harvard School of Engineering and Applied Sciences
2011 – 2016 – Faculty Reviewer for Harvard College Undergraduate Research Association
2011 – 2016 – Faculty Advisor for Harvard Biotechnology Society
2011 – 2016 – Faculty Advisor for Harvard College Biomedical Engineering Society
2011 – 2014 – Faculty Mentor for Harvard Graduate Women in Science and Engineering
2011 – 2014 – Freshman Proctor in Matthews Hall, Harvard College
- 2013 Pilot Proctor, Harvard Yard Senior Common Room

2011 – 2014 – Board of Freshman Advisors, Harvard College
2011 – 2012 – ABET External Advisory Panel Response Committee, Harvard School of Engineering and Applied Sciences
2011 – 2012 – Advisory Committee on Applied Physics 50, Harvard School of Engineering and Applied Sciences

UNDERGRADUATE RESEARCH ADVISING AND STUDENT ACHIEVEMENTS:

[1] 2017 – 2018 – Sergio Urquiza, Harvard Extension Class of 2018, Biotechnology
- Project: "Design of a Microfluidic Device for the Detection of Lead in Blood Samples"

[2] 2014 – 2015 – Dileep Monie, Harvard Extension Class of 2016, Biotechnology
- Project: "Bioprinting of Dynamic Human Organs-on-Chips"
- 2015 Harvard Class Marshal for Bachelor of Liberal Arts (one of 2 selected in university-wide competition)

[3] 2013 – 2014 – Madeline Cooper, Harvard Class of 2016, Biomedical Engineering
- Project: "Optimizing Drug Release from Hydrogels for Neurosurgical Recovery"
- 2013 Harvard College Research Program (HCRP) Fellow

[4] 2013 – 2014 – Tiana Raphel, Harvard Class of 2016, Biomedical Engineering
- Project: "Microspheres for Interventional Neurology and Stroke Prevention"
- 2013 Harvard College Program in Science and Engineering (PRISE) Fellow (one of 100 awardees)

[5] 2013 – 2014 – Renajd Rrapi, Harvard Class of 2016, Biomedical Engineering
- Project: "Characterization of Size and Sphericity of Alginate Microspheres"
- 2013 Undergraduate Fellow, SEEK 3 on Grand Challenges for Global Development

[6] 2013 – 2014 – Vincent Chow, Harvard Class of 2016, Engineering Sciences
- Project: "Preparation of Alginate Microparticles for Controlled Drug Delivery"
- 2013 Undergraduate Fellow, SEEK 3 on Grand Challenges for Global Development

[7] 2013 – 2014 – Malena Ohl, MIT Class of 2016, Biochemical Engineering
- Project: "Preparation of Chitosan-Coated Alginate Microspheres"
- 2013 Undergraduate Fellow, SEEK 3 on Grand Challenges for Global Development

[8] 2013 – 2014 – Jillian Lee, Harvard Class of 2015, Engineering Sciences
- Project: "Drug Release from Electrically Conductive Hydrogels"
- 2013 Harvard College Program in Science and Engineering (PRISE) Fellow (one of 100 awardees)

[9] 2013 – 2014 – Alydaar Rangwala, Harvard Class of 2015, Applied Mathematics
- Project: "Theratech: Low-cost, Disposable, and Electronic Patch-Based Cancer Chemotherapy Device"
- **2013 Collegiate Inventors Competition – Second Place**
- 2013 Create the Future Design Contest – Grand Prize Winner
- 2013 Silicon Valley Boomer Venture Summit Business Plan Competition – Finalist

- 2013 Harvard College Innovation (I3) Challenge – $5K McKinley Family Grant for Innovation and Entrepreneurial Leadership in a Commercial Enterprise
- 2013 NIH Design by Biomedical Undergraduate Teams (DEBUT) Challenge – Honorable Mention
- 2013 Harvard School of Engineering and Applied Sciences Nectar Grant
- 2013 American Society of Mechanical Engineers (ASME) Innovation Showcase – Third Place Winner
- 2012 Harvard School of Engineering and Applied Sciences Nectar Grant
- 2012 Harvard College Venture Partners Pitch Competition – Second Place Winner
- 2012 MIT $100K Entrepreneurship Competition – Elevator Pitch Finalist
- 2012 Harvard Business School Entrepreneurship Conference – Pitch Finalist

[10] 2013 – 2014 – Alexander Bukhta, Harvard Class of 2015, Biomedical Engineering
- Project: "Mobile Medical Control"
- 2013 Biomedical Engineering Society (BMES) Student Re2016ative on Industry Relations Subcommittee

[11] 2013 – 2014 – Jurgen Kameniku, Harvard Class of 2015, Engineering Sciences
- Project: "Characterization of Compressibility of Alginate Microspheres"
- 2013 Undergraduate Fellow, SEEK 3 on Grand Challenges for Global Development

[12] 2013 – 2014 – David Liu, Harvard Class of 2014, Engineering Sciences
- Project: "Sequential Release of Chemotherapeutics in Poloxamer Hydrogels"
- 2014 Harvard College Phi Beta Kappa

[13] 2013 – 2014 – Jeffrey A. Mulligan, Harvard Class of 2014, Engineering Sciences
- Project: "A Protocol for the Evaluation of Hydrogel Composites for Application as Injectable Platforms for Cardiac Tissue Regeneration"

[14] 2013 – 2014 – Elizabeth Lenczowski, Harvard Class of 2014, Biomedical Engineering
- Project: "Strategies for Commercialization in Biotechnology"
- 2013 Harvard College Research Program (HCRP) Fellow
- 2013 Collegiate Rowing Coaches Association All-American

[15] 2013 – 2014 – Pearl Bhatnagar, Harvard Class of 2014, Social Studies
- Project: "Future Forecasts for Technology and International Development"
- 2013 Carol K. Pforzheimer Student Fellowship, Radcliffe Institute for Advanced Study at Harvard University
- 2013 Harvard College Research Program (HCRP) Fellow
- 2013 David Rockefeller Center for Latin American Studies Summer Travel Grant

[16] 2013 – 2014 – Susan Arias, Harvard Class of 2014, Biomedical Engineering
- Project: "Biomaterials for Healthcare in Bolivia"

[17] 2012 – 2014 – Khin-Kyemon Aung, Harvard Class of 2014, Human Evolutionary Biology
- Project: "Ethical Implications of Bonus Payments for Medicare Advantage Plans"
- 2013 United States Department of Health and Human Services (HHS) Health Data Initiative Workshop Leader
- 2013 Harvard University Institute of Politics (IOP) Summer Stipend Award

[18] 2012 – 2013 – Nikhil Mehandru, Harvard Class of 2015, Biomedical Engineering
- Project: "Theratech: Low-cost, Disposable, and Electronic Patch-Based Cancer Chemotherapy Device"
- **2013 Collegiate Inventors Competition – Second Place**
- 2013 Create the Future Design Contest – Grand Prize Winner
- 2013 Silicon Valley Boomer Venture Summit Business Plan Competition – Finalist
- 2013 Harvard College Innovation (I3) Challenge – $5K McKinley Family Grant for Innovation and Entrepreneurial Leadership in a Commercial Enterprise
- 2013 NIH Design by Biomedical Undergraduate Teams (DEBUT) Challenge – Honorable Mention
- 2013 Harvard School of Engineering and Applied Sciences Nectar Grant
- 2013 American Society of Mechanical Engineers (ASME) Innovation Showcase – Third Place Winner
- 2013 King Abdullah University of Science and Technology Research Poster Competition – Finalist (one of 30 selected in international competition)
- 2012 Harvard School of Engineering and Applied Sciences Nectar Grant
- 2012 Harvard College Research Program (HCRP) Fellow
- 2012 Harvard College Venture Partners Pitch Competition – Second Place Winner
- 2012 MIT $100K Entrepreneurship Competition – Elevator Pitch Finalist
- 2012 Harvard Business School Entrepreneurship Conference – Pitch Finalist

[19] 2012 – 2013 – Brandon Gerberich, Harvard Class of 2014, Engineering Sciences
- Project: "Surface Patterning of Biomaterials for Tissue Regeneration"
- 2012 Harvard College Program in Science and Engineering (PRISE) Fellow (one of 100 awardees)
- 2012 Harvard College Program in Science and Engineering (PRISE) Student Keynote Speaker
- 2012 Harvard College Research Program (HCRP) Fellow

[20] 2012 – 2013 – John Azubuike, Harvard Class of 2014, Engineering Sciences
- Project: "Optimization of Hydrogels, Xerogels, and Organogels for Neuronal Growth"
- 2012 Harvard College Research Program (HCRP) Fellow

[21] 2012 – 2013 – Matthew Wagner, Harvard Class of 2014, Engineering Sciences
- Project: "Mechanical Characterization of Corn-Derived Polymers"
- 2014 United States Navy Health Professions Scholarship Program
- 2013 Harvard College Phi Beta Kappa
- 2012 Wings Over America Scholarship Foundation – John Griffing Volunteer of the Year Scholar
- 2011-2012 John Harvard Scholar
- 2011-2012 Harvard Detur Book Prize
- 2010-2011 John Harvard Scholar

[22] 2012 – 2013 – Katrina Williamson, Harvard Class of 2014, Engineering Sciences
- Project: "Drug Delivery from Electrically Conductive Hydrogels"
- 2013 Harvard College Phi Beta Kappa
- 2012 Harvard College Program in Science and Engineering (PRISE) Fellow (one of 100 awardees)
- 2012-2013 Harvard College Scholar
- 2011-2012 John Harvard Scholar
- 2010-2011 Harvard College Scholar

[23] 2012 – 2013 – Godwin Abiola, Harvard Class of 2014, Biomedical Engineering
- Project: "Naturally-Derived Hydrogels for Neuronal Growth"
- 2013 National Science Foundation Rocky Mountain Science and Sustainability Network Fellow (one of 20 selected in national competition)
- 2012 Herchel Smith Undergraduate Science Research Program Fellow (one of 50 awardees)
- 2012 Harvard College Program in Science and Engineering (PRISE) Fellow (one of 100 awardees)

[24] 2012 – 2013 – Carolina Ragolta, Harvard Class of 2013, Engineering Sciences
- Senior Thesis: "Mechanical Properties of Hydrogel Composites With Carbon Nanobrushes for Tissue Engineering Applications"
- 2013 Sigma Xi Student Research Showcase – Second Place in Undergraduate Division for Engineering, Math, Computer Science, Physics & Astronomy
- 2013 Inflection Lucky 13 of 2013 (one of 13 selected in international competition)
- 2012 Business Insider List of the Most Impressive Students at Harvard (one of 22 selected university-wide)
- 2012 Harvard Crimson List of the Top 15 Most Interesting Seniors

[25] 2012 – 2013 – Scott Yim, Harvard Class of 2013, Biomedical Engineering
- Senior Project: "Mechanical and Biological Characterization of Bamboo-Derived Fibers"
- 2013 Harvard Class Marshal (one of 8 selected in university-wide competition)
- 2013 Harvard Gazette Profile of Stellar Graduating Seniors (one of 8 selected university-wide)
- 2013 Harvard Reflections Senior Student Speaker (one of 8 in university-wide competition)
- 2013 Harvard Reflections Award Winner
- 2013 Harvard Queers of 1983 (HQ83) Fellowship

[26] 2012 – 2013 – Tunc Kiymaz, Harvard Class of 2013, Biomedical Engineering
- Senior Project: "Hydrogel Composites Containing Carbon Nanobrushes for Chondrocyte Proliferation"
- 2013 Harvard Class Marshal Finalist (one of 16 selected in university-wide competition)

[27] 2012 – 2013 – Annie Ryu, Harvard Class of 2013, Social Anthropology
- Senior Project: "Biocompatibility Testing of Jackfruit, Kokum, Amla, and Bael Fruit"
- **2013 Fulbright Scholar** (deferred)
- 2013 Harvard Magazine Profile of Stellar Graduating Seniors (one of 7 selected university-wide)
- 2013 Harvard Thinks Big 4 Student Speaker (one selected university-wide)
- 2012 Glamour Magazine Top 10 College Women

[28] 2012 – 2013 – Olajumoke Odedele, Harvard Class of 2013, Biomedical Engineering
- Senior Project: "Medical Uses for Nigeria's Agricultural Resources"

[29] 2012 – 2013 – Sarah Shareef, Harvard Class of 2013, Engineering Sciences
- Senior Thesis: "Design of Thermosensitive Poloxamer Gel for Cardiac Tissue Engineering"

[30] 2012 – 2013 – Tsiu Moorosi, Harvard Class of 2013, Engineering Sciences
- Senior Thesis: "Design of a Low-Cost Neonatal Transport Incubator"

[31] 2011 – 2013 – William Marks, Harvard Class of 2013, Engineering Sciences
- Project: "Design of an Electrically Conductive Composite for Applications in Cardiac Regeneration"
- **2013 Fulbright Scholar**
- 2013 National Science Foundation Graduate Research Fellowship
- 2013 Gates Cambridge Scholar (one of 100 awardees in international competition)
- 2013 Clarendon Fund Scholar in Mathematical, Physical, and Life Sciences (one of 30 awardees in international competition)
- 2013 Sigma Xi Student Research Showcase – Second Place in Undergraduate Division for Engineering, Math, Computer Science, Physics & Astronomy
- 2013 Harvard Bioengineering Expo – Honorable Mention in Student Poster Competition
- 2013 American Institute of Chemical Engineers (AIChE) Nominee for New Faces of Engineering College Edition (one of 3 selected in international competition)
- 2012 Harvard College Research Program (HCRP) Fellow
- 2012 IEEE Northeast Bioengineering Conference Student Travel Grant
- 2012 Society of Biological Engineers Student Travel Grant
- 2012 Biomedical Engineering Society Student Travel Grant

[32] 2011 – 2012 – Stephanie Warner, Harvard Class of 2015, Biomedical Engineering
- Project: "Chronic Stress and Angiogenesis: The Effect of Cortisol on Blood Vessel Growth"
- 2012 Harvard Conant Prize Winner (one of 4 awardees in university-wide competition)

[33] 2011 – 2012 – Kimberly Goh, Harvard Class of 2013, Chemical and Physical Biology
- Project: "Chronic Stress and Angiogenesis: The Effect of Cortisol on Blood Vessel Growth"
- 2012 Harvard Conant Prize Winner (one of 4 awardees in university-wide competition)

[34] 2011 – 2012 – Christopher Ding, Harvard Class of 2012, Biomedical Engineering
- Senior Project: "Double Spray Device for Delivery of Chitosan-Based Tissue Adhesive"
- Jointly advised with Donald Ingber of Wyss Institute for Biologically Inspired Engineering

[35] 2011 – 2012 – Olumurejiwa Fatunde, Harvard Class of 2012, Biomedical Engineering
- Senior Thesis: "Medical Devices and Biomaterials for the Developing World: Technical Solutions and Policy Recommendations – Case Studies in Ghana and Nicaragua"
- 2012 Whitaker Foundation International Fellow (one of 50 awardees in international competition)

[36] 2011 – 2012 – Erfan Soliman, Harvard Class of 2012, Engineering Sciences
- Senior Thesis: "Design of an Electrically Conductive, Biocompatible Composite Containing Carbon Nanobrushes for Applications in Nerve Cell Regeneration"
- 2012 Clarendon Fund Scholar in Mathematical, Physical, and Life Sciences (one of 30 awardees in international competition)
- 2012 Harvard College Research Program (HCRP) Fellow

[37] 2011 – 2012 – Veda Eswarappa, Harvard Class of 2012, Biomedical Engineering
- Senior Thesis: "Naturally Based Biomaterials and Therapeutics for the Developing World: The Case of India"

[38] 2011 – 2012 – Leslie Rea, Harvard Class of 2012, Biomedical Engineering
- Senior Project: "Mechanical and Biological Characterization of Corn-Derived Poly-L-Lactic Acid"

GRADUATE RESEARCH ADVISING:

[39] 2017 – 2018 – Meghan Hart, Harvard Extension Class of 2018, Master of Liberal Arts in Biotechnology
- Master's Thesis: "An Analysis of the Feasibility of N-of-1 Clinical Trials for the Market Approval of Pharmaceuticals"

[39] 2016 – 2018 – Emily Sudhyadhom, Harvard Extension Class of 2017, Master of Liberal Arts in Biotechnology
- Master's Thesis: "Evaluation of Silk and Rose Biomaterials in the Nano-Cosmeceutical Industry"

[38] 2015 – 2017 – Krish Ramadurai, Harvard Extension Class of 2017, Master of Liberal Arts in Biotechnology
- Master's Thesis: "3-Dimensional Printing and Bio-Based Materials in Global Health: An Interventional Approach to Addressing Healthcare Disparities in Low and Middle Income Countries"

[39] 2015 – 2017 – Miguel Williams, Harvard Extension Class of 2017, Master of Liberal Arts in Biotechnology
- Master's Thesis: "A Skin Substitute Re-epithelialization Calculator for Natural, Synthetic, and Composite Skin Cell Scaffolds"

[40] 2014 – 2015 – Adam Tracy, Harvard Extension Class of 2015, Master of Liberal Arts in Biotechnology
- Master's Thesis: "Bio-based Materials as Applicable, Accessible, and Affordable Healthcare Solutions: A Case Study on Nigeria"

[41] 2013 – 2014 – Allison Halleck, Harvard Extension Class of 2014, Master of Liberal Arts in Biotechnology
- Master's Thesis: "Compositional Effects on Performance Parameters of Carbon Nanobrush Impregnated Pluronic Hydrogels for Tissue Engineering and Drug Delivery"

[42] 2012 – 2013 – William Marks, Harvard Class of 2013, Master of Science in Engineering Sciences
- Project: "Thermoreversible Gels Containing Carbon Nanobrushes for Tissue Engineering"

[43] 2011 – 2013 – Suneil Seetharam, Harvard Extension Class of 2013, Master of Liberal Arts in Biotechnology
- Master's Thesis: "Development and Design of a Sprayable Chitosan-Based Tissue Adhesive"
- 2013 Harvard Class Marshal for Master of Liberal Arts (one of 8 selected in university-wide competition)
- 2013 Dean's Prize for Outstanding Master of Liberal Arts Thesis
- 2013 Dean's List Academic Achievement Award

UNDERGRADUATE SENIOR THESIS READING COMMITTEES:

[1] 2015 – Trevor Nash, Harvard Class of 2015, Biomedical Engineering
- "Engineering a Functionalized Biofilm-Based Material for Modulating Escherichia Coli's Effects in the Mammalian Gastrointestinal Tract"

[2] 2015 – Kriti Subramanyam, Harvard Class of 2015, Engineering Sciences
- "Hydrogel-Encapsulated Drug Delivery Liposomes for Inhibition of Metastatic Breast Cancer"

[3] 2015 – Alex Miller, Harvard Class of 2015, Engineering Sciences
- "Refillable Vascular Grafts Using DNA Toehold Exchange"

[4] 2015 – Sarah Scalia, Harvard Class of 2015, Engineering Sciences
- "Diagnostic Microdevice for Ultrasound Detection of Early-Stage Breast Cancer"

[5] 2014 – Majahonkhe Shabangu, Harvard Class of 2014, Biomedical Engineering
- "Development of a Mass Spectrometry-Based Technique for Identification and Characterization of Immunological Membrane Proteins in Human Cells"

[6] 2014 – Mathew Schnorenberg, Harvard Class of 2014, Biomedical Engineering
- "A Quantitative, Multidisciplinary Approach to Automating Fluorescence Image Analysis: An Application in Personalized Cancer Diagnostics"

[7] 2013 – Morgan Paull, Harvard Class of 2013, Engineering Sciences
- "Bacteria-Mediated Gene Therapy"

[8] 2013 – Jean Shiao, Harvard Class of 2013, Engineering Sciences
- "Developing A GUI For Modeling Cardiac Biomarkers of Stochastic Resonance in Apneic Infants"

[9] 2013 – Uyanga Tsedev, Harvard Class of 2013, Engineering Sciences
- "AlginAid: Drug Delivery Bandaging"

[10] 2013 – Suvai Gunasekaran, Harvard Class of 2013, Biomedical Engineering
- "Effect of Cell Microenvironment on the Growth of Breast Cancer Cells"

[11] 2013 – Gina Yu, Harvard Class of 2013, Biomedical Engineering
- "Identifying DNA Repair Factors Essential for Alternative Non-Homologous End-Joining and Oncogenic Translocation Formation"

[12] 2013 – Dewahar Senthoor, Harvard Class of 2013, Biomedical Engineering
- "The Development of an 8-Marker Multiplexed Lateral Flow Matrix Platform for Rapid Dengue Diagnostics"

[13] 2013 – Matthew Henriques, Harvard Class of 2013, Biomedical Engineering
- "Temporally Controlled Release of Gold Nanoparticles from Alginate Hydrogels: Explorations for Drug Delivery"

[14] 2013 – Liang Cheng, Harvard Class of 2013, Biomedical Engineering and East Asian Studies
- "Acupuncture Points: A Historical and Scientific Analysis"

[15] 2012 – George Huang, Harvard Class of 2012, Biomedical Engineering
- "Directed Differentiation of Juxtaposed Mineralized Tissues"

[16] 2012 – Jake Weatherly, Harvard Class of 2012, Biomedical Engineering
- " Electroencephalographic (EEG) Playback to Analyze an Algorithm that Predicts Epileptic Seizures"

[17] 2012 – Maria Xu, Harvard Class of 2012, Molecular and Cellular Biology
- "Engineering an Injectable, Macropore-Forming, Biocompatible Scaffold for the Delivery of Cancer Immunotherapies"

[18] 2012 – Jacqueline Quinn, Harvard Class of 2012, Engineering Sciences
- "The iGEM Sketchpad: Design of a Tablet Application for Synthetic Biology"

[19] 2012 – Nan Du, Harvard Class of 2012, Engineering Sciences
- "Design of an Optimized Endothelial Sprouting Assay for Angiogenesis"

GRADUATE THESIS COMMITTEES:

[20] 2012 – 2016 – Yuri Ishihara, PhD student, Harvard School of Engineering and Applied Sciences
- Project: "Genetically Encoded MRI Contrast Agents"

[21] 2016 – 2017 – Morgan Urello, PhD student, University of Delaware, Chemical and Biomolecular Engineering
- Project: "Utilization of Collagen Remodeling Pathways to achieve Efficient, Controlled Gene Delivery in Chronic Wound Repair"

PROFESSIONAL REFERENCES:

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