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Education:

- 1992 - 1996 Postdoctoral Training, California Institute of Technology, Professor Harry B. Gray.
1987 - 1992 Ph.D., University of Illinois at Urbana-Champaign, Professor Kenneth S. Suslick.
Thesis: *The Sonochemical Synthesis of Inorganic and Biological Materials*
1983 - 1987 A.B., with Chemistry Honors, Occidental College, Professor Franklin P. DeHaan.
Thesis: *Kinetics of Friedel-Crafts Chloromethylation Reactions*

Research and Professional Experience:

- 2009 - Professor of Biomedical Engineering, College of Engineering, Boston University, Boston, MA.
2009 - Professor of Chemistry, College of Arts and Sciences, Boston University, Boston, MA.
2009 - College of Engineering Distinguished Faculty Fellow
2009 - Director of the NIH T32 Program -Translational Research in Biomaterials - Boston University, Boston, MA.
2003 - 2009 Associate Professor of Biomedical Engineering, College of Engineering, Boston University, Boston, MA.
2003 - 2009 Associate Professor of Chemistry, College of Arts and Sciences, Boston University, Boston, MA.
2003 - 2009 Associate Professor of Ophthalmology (Secondary Appointment), Boston University Medical School, Boston, MA.
2003 - 2008 Adjunct Associate Professor of Biomedical Engineering, School of Engineering, Duke University, Durham, NC.
2004 - Member of the Center for Nanoscience and Nanobiotechnology, Boston University, Boston, MA.
2006 - Liaison, Site Miner for CIMIT and Coulter Translational Partnership Grant, College of Engineering, Boston University, Boston, MA.
1996 - 2003 Assistant Professor of Chemistry, College of Arts and Sciences, Duke University, Durham, NC.
2001 - 2003 Assistant Professor of Biomedical Engineering (Secondary Appointment), School of Engineering, Duke University, Durham, NC.
1999 - 2003 Assistant Professor of Ophthalmology (Secondary Appointment), Duke University Medical Center, Durham, NC.
1997 - 2003 Member of the Center for Cellular & Biosurface Engineering, Duke University, Durham, NC.
1997 - 2002 Member of the Pharmacology Training Grant Program, Duke University, Durham, NC.
1996 - 2002 Member of the Biological Chemistry Program, Duke University, Durham, NC.
1995 - 1996 Senior Research Fellow, California Institute of Technology, Pasadena, CA.

- 1993 - 1995 NIH Postdoctoral Fellow, California Institute of Technology, Pasadena, CA.
- 1989 - 1992 Graduate Research Fellow, University of Illinois at Urbana-Champaign, Urbana, IL.
- 1987 - 1989 Chemistry Teaching Assistant, University of Illinois at Urbana-Champaign, Urbana, IL.
- 1985 - 1987 Summer Research Assistant, Occidental College, Los Angeles, CA.
- 1985 - 1987 Organic Lab Teaching Assistant, Occidental College, Los Angeles, CA.

Honors and Awards:

- 2010 Professeur Invité and Certificat sur Honneur, Université de Bordeaux (Bordeaux II)
- 2010 Boston University Innovator of the Year
- 2010 Elected to the College of Fellows of the American Institute for Medical and Biomedical Engineering (AIMBE)
- 2009 COE Distinguished Faculty Fellow (5-year Endowed Fellowship)
- 2008 Edward M. Kennedy Award for Health Care Innovation
- 2008 Invited Speaker to the 102nd Korean Chemical Society
- 2007 Professeur Invité and Certificat sur Honneur, Université de la Méditerranée (Aix-Marseille II)
- 2006 Elected Fellow of the American Academy of Nanomedicine
- 2003 Selected by NSF/DFG to attend the VIIth American German Polymer Symposium
- 2002 Selected by National Academy of Engineering to attend the Annual JST International Interdisciplinary Research Exchange Symposium
- 2001 Johnson and Johnson Focused Giving Grant Recipient
- 2001 3M Non-Tenured Faculty Award
- 2000 Alfred P. Sloan Research Fellowship
- 2000 Camille Dreyfus Teacher-Scholar
- 1999 Pew Scholar in the Biomedical Sciences
- 1999 NSF Career Award
- 1998 Whitaker Foundation Grant Recipient
- 1994 ACS Nobel Laureate Signature Award
- 1993 National Institute of Health Postdoctoral Fellowship
- 1991 T. S. Piper Award for Outstanding Inorganic Research
- 1990 The ACS Fellowship of the Colloid & Surface Division (Sponsored by Procter & Gamble)
- 1989 University of Illinois Chemistry Department Fellowship
- 1991 Sigma Xi Research Paper Competition (2nd Prize)
- 1991 Biotechnology Center Travel Award
- 1989 Membership to Phi Lambda Upsilon (Chemical Honor Society)
- 1988 Excellence in Teaching (Fall & Spring)
- 1987 Frank Lambert Chemistry Award
- 1987 Occidental College Chemistry Department Honors
- 1987 Service Award for Alpha Chi Sigma
- 1981 Eagle Scout (Boy Scouts of America)

Publications:

1. "Protein Microencapsulation of Nonaqueous Liquids."
Kenneth S. Suslick and Mark W. Grinstaff
Journal of the American Chemical Society, **1990**, *112*, 7807-7809.
2. "Proteinaceous Microspheres."
Mark W. Grinstaff and Kenneth S. Suslick
in *Macromolecular Assemblies* Stroeve P.; Balazs, A. C., eds.; ACS Symposium Series;
Washington, D.C.; **1991**, 218-226.
3. "Air-filled Proteinaceous Microbubbles: Synthesis of an Echo Contrast Agent."
Mark W. Grinstaff and Kenneth S. Suslick
Proceedings of the National Academy of Science USA, **1991**, *88*, 7708-7710.
4. "Sonochemical Synthesis of Amorphous Iron."
Kenneth S. Suslick, Seok-Burm Choe, Andrzej A. Cichowlas and Mark W. Grinstaff
Nature, **1991**, *353*, 414-416.
5. "Effect of Cavitation Conditions on Amorphous Metal Synthesis."
Mark W. Grinstaff, Andrzej A. Cichowlas, Seok-Burm Choe, and Kenneth S. Suslick
Ultrasonics, **1991**, *30*, 168-172.
6. "Magnetic Properties of Amorphous Iron."
Mark W. Grinstaff, Myron B. Salamon, and Kenneth S. Suslick
Physics Review B, **1993**, *48*, 269-273.
7. "Sonoluminescence from Metal Carbonyls."
Kenneth S. Suslick, Edward B. Flint, Mark W. Grinstaff, and Kathleen A. Kemper
Journal of Physical Chemistry, **1993**, *97*, 3098-3099.
8. "Neutron Diffraction on Amorphous Iron Powder."
R. Bellissent, G. Galli, M. W. Grinstaff, P. Miglirido, and K. S. Suslick
Physics Review B, **1993**, *48*, 15797-15800.
9. "Characterization of Sonochemically Prepared Proteinaceous Microspheres."
Kenneth S. Suslick, Mark W. Grinstaff, Ken J. Kolbeck, and Mike Wong
Ultrasonics Sonochemistry, **1994**, *1*, S65-S68.
10. "In Vivo Measurement of Oxygen Concentration Using Sonochemically Synthesized Microspheres."
KeJain Liu, Mark W. Grinstaff, Harold M. Swartz, Jinjie Jiang, Kenneth S. Suslick, and Wei Wang
Biophysical Journal, **1994**, *67*, 896-901.
11. "Mechanism of Catalytic Oxygenation of Alkanes by Halogenated Iron Porphyrins."
Mark W. Grinstaff, Michael G. Hill, Jay A. Labinger, and Harry B. Gray
Science, **1994**, *264*, 1311-1313.

12. "Electron Transfer in Cytochrome c Depends Upon the Structure of the Intervening Medium."
Timothy B. Karpishin, Mark W. Grinstaff, Sonja Komar-Panicucci, George L. McLendon, and Harry B. Gray
Structure, **1994**, 2, 414-422.
13. "¹⁹F-NMR Spectra and Structures of Halogenated Porphyrins."
Eva R. Birnbaum, Julia A. Hodge, Mark W. Grinstaff, William P. Schaefer, Lawrence Henling, Jay A. Labinger, John E. Bercaw, and Harry B. Gray
Inorganic Chemistry, **1995**, 34, 3625-3632.
14. "Structure, Electronic Properties, and Oxidation-Reduction Reactivity of Halogenated Iron Porphyrins."
Mark W. Grinstaff, Michael G. Hill, Eva R. Birnbaum, William P. Schaefer, Jay A. Labinger, and Harry B. Gray
Inorganic Chemistry, **1995**, 34, 4896-4902.
15. "On the Mechanism of Catalytic Alkene Oxidation by Molecular Oxygen and Halogenated Iron Porphyrins."
Eva R. Birnbaum, Mark W. Grinstaff, Jay A. Labinger, John E. Bercaw, and Harry B. Gray
Journal of Molecular Catalysis, **1995**, 104, L119-L122.
16. "Biological Temperature Measurements Using EPR Spectroscopy."
Joseph J. Eckburg, John C. Chato, KeJain Liu, Mark W. Grinstaff, Harold M. Swartz, and Kenneth S. Suslick
Journal of Biomechanical Engineering, **1996**, 118, 193-200.
17. "Aerobic Oxidation of Hydrocarbons Catalyzed by Electronegative Iron Salen Complexes."
Arnd Bottcher, Mark W. Grinstaff, Jay A. Labinger, and Harry B. Gray
Journal of Molecular Catalysis, **1996**, 113, 191-200.
18. "How Do Electronegative Substituents Make Metal Complexes Better Catalysts for the Oxidation of Hydrocarbons by Dioxygen?"
Arnd Bottcher, Eva R. Birnbaum, Jay A. Labinger, Mark W. Grinstaff, and Harry B. Gray
Journal of Molecular Catalysis, **1997**, 117, 229-242.
19. "Electrophilic Aromatic Substitution 13. Kinetics and Spectroscopy of the Chloromethylation of Benzene and Toluene with Methoxyacetyl Chloride or Chloromethyl Methyl Ether in Nitromethane or Tin Tetrachloride in Dichloromethane. The Methoxymethyl Cation as a Remarkably Selective Common Electrophile."
Franklin P. DeHaan, Mark Djaputra, Mark W. Grinstaff, Craig R. Kaufman, James C. Keithly, Amit Kumar, Mark K. Kuwayama, K. Dale Macknet, Jim Na, Bimal R. Patel, Mike J. Pinkerton, Jeffrey H. Tidwell, and Randy M. Villahermosa
Journal of Organic Chemistry, **1997**, 62, 2694-2703.
20. "Generation of an Unprecedented Excited State Oxidant in a Coordinately Unsaturated Platinum Complex."
Karl Base and Mark W. Grinstaff
Inorganic Chemistry, **1998**, 37, 1432-1433.

21. "A Facile and Convenient Solid-Phase Procedure for Synthesizing Nucleoside Hydroxamic Acids."
Shoeb I. Khan and Mark W. Grinstaff
Tetrahedron Letters, **1998**, 39, 8031-8034.
22. "The Alkylation of Iodouridine by a Heterogeneous Palladium Catalyst."
Shoeb I. Khan and Mark W. Grinstaff
Journal of Organic Chemistry, **1999**, 64, 1077-1078.
23. "Automated Solid-Phase Synthesis of Site Specifically Labeled Ruthenium-Oligonucleotides."
Shoeb I. Khan, Amy E. Beilstein, and Mark W. Grinstaff
Inorganic Chemistry, **1999**, 38, 418-419.
24. "On the Second-Order Nonlinear Optical Structure-Property Relationships of Metal Chromophores."
Karl Base, Mark A. Tierney, Alain Fort, Jacques Muller, and Mark W. Grinstaff
Inorganic Chemistry, **1999**, 38, 287-289.
25. "Synthesis and Characterization of a Novel Polysaccharide Hydrogel."
Kimberly A. Smeds, Anne Pfister-Serres, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
Journal of Macromolecular Sciences, **1999**, A36, 981-989.
25. "Palladium(0) Catalyzed Modification of Oligonucleotides during Automated Solid-Phase Synthesis."
Shoeb I. Khan and Mark W. Grinstaff
Journal of the American Chemical Society, **1999**, 121, 4704-4705.
27. "Synthesis and Excited-State Properties of a Novel Ruthenium Nucleoside: Ru(bpy)₂(5-bpy-2'-deoxyuridine)²⁺."
Shoeb I. Khan, Amy E. Beilstein, Gregory D. Smith, Milan Sykora, and Mark W. Grinstaff
Inorganic Chemistry, **1999**, 38, 2411-2415.
28. "Automated Solid-Phase DNA Synthesis and Photophysical Properties of Oligonucleotides Labeled at the 5'-Terminus with Ru(bpy)₃²⁺."
Shoeb I. Khan, Amy E. Beilstein, Milan Sykora, Gregory D. Smith, Xi Hu, and Mark W. Grinstaff
Inorganic Chemistry, **1999**, 38, 3922-3925.
29. "How Do Charges Travel in DNA?"
Mark W. Grinstaff
Angewante Chemie International Edition, **1999**, 38, 3629-3635 (invited highlight).

30. "Solid-Phase Synthesis and Photophysical Properties of DNA Labeled at the Nucleobase with $\text{Ru}(\text{bpy})_2(4\text{-m-}4'\text{-pa-bpy})^{2+}$." "Shoeb I. Khan, Amy E. Beilstein, Milan Sykora, Gregory D. Smith, and Mark W. Grinstaff *Inorganic Chemistry*, **1999**, 38, 5999-6002.
31. "On-Column Derivatization of Oligodeoxynucleotides with Ferrocene." Amy E. Beilstein and Mark W. Grinstaff *Chemical Communications*, **2000**, 509-510.
32. "Site-Specifically Labeled Metallo-Oligonucleotides." Amy E. Beilstein, Mark T. Tierney, and Mark W. Grinstaff *Comments on Inorganic Chemistry*, **2000**, 22, 105-127 (invited review).
33. "Automated Solid-Phase Synthesis and Photophysical Properties of Oligonucleotides Labeled at 5'-Amino-Thymidine with $\text{Ru}(\text{bpy})_3^{2+}$." Xi Hu, Gregory D. Smith, Milan Sykora, Stephen J. Lee, and Mark W. Grinstaff *Inorganic Chemistry*, **2000**, 39, 2500-2504.
34. "Electron Transfer in an Oligonucleotide Duplex: Observation of the Electron-Transfer Intermediate." Mark T. Tierney, Milan Sykora, Shoeb I. Khan, and Mark W. Grinstaff *Journal of Physical Chemistry B*, **2000**, 104, 7574-7576.
35. "Synthesis and Characterization of Fluorenone, Anthraquinone, and Phenothiazine Labeled Oligodeoxynucleotides: 5'-Redox Probes for DNA Redox Chemistry." Mark T. Tierney and Mark W. Grinstaff *Journal of Organic Chemistry*, **2000**, 65, 5355-5359.
36. "Synthesis and Stability of Oligodeoxynucleotides Containing C8-Labeled 2-Deoxyadenosine: Novel Redox Nucleobase Probes for DNA Mediated Charge-Transfer Studies." Mark T. Tierney and Mark W. Grinstaff *Organic Letters*, **2000**, 2, 3413-3416.
37. "Supramolecular Structures of Novel Carbohydrate Based Phospholipids." Geoffrey S. Hird, Thomas J. McIntosh, and Mark W. Grinstaff *Journal of the American Chemical Society*, **2000**, 122, 8097-8098.
38. "Novel Photocrosslinkable Polysaccharides for In Situ Hydrogel Formation." Kimberly A. Smeds, Anne Pfister-Serres, Daijiro Miki, Kourosh A. Dastghieb, Makoto Inoue, Diane L. Hatchell, and Mark W. Grinstaff *Journal of Biomedical Material Research*, **2001**, 54, 115-121.
39. "Step-Scan FTIR Time-Resolved Spectroscopy in the Solid-State." Gregory D. Smith, M. Shane Hutson, Yu Lu, Mark T. Tierney, Mark W. Grinstaff, and Richard Palmer *Applied Spectroscopy*, **2001**, 55, 637-642.

40. "Synthesis and Characterization of Polyether-ester Dendrimers Composed of Glycerol and Lactic Acid."
Michael A. Carnahan and Mark W. Grinstaff
Journal of the American Chemical Society, **2001**, *123*, 2905-2906.
41. "Synthesis and Characterization of Fc Labeled Oligodeoxynucleotides."
Amy E. Beilstein and Mark W. Grinstaff
Journal of Organometallic Chemistry, **2001**, *637-639*, 398-406 (invited article; special issue marking the 50th anniversary of ferrocene).
42. "Synthesis and Characterization of Poly(glycerol-succinic acid) Dendrimers."
Michael A. Carnahan and Mark W. Grinstaff
Macromolecules, **2001**, *34*, 7648-7655.
43. "Synthesis, Thermodynamics, and Photophysics of Phenothiazine Labeled Oligodeoxynucleotides: Novel 2'-Deoxyadenosine and Thymidine Ribose Probes for Labeling DNA."
Xi Hu, Mark T. Tierney, and Mark W. Grinstaff
Bioconjugate Chemistry, **2002**, *13*, 83-89.
44. "Direct-Writing of Polymer Nanostructures: Poly(thiophene) Nanowires on Semiconducting and Insulating Surfaces."
Benjamin W. Maynor, Shaun F. Filocamo, Mark W. Grinstaff, and Jie Liu
Journal of the American Chemical Society, **2002**, *124*, 522-523.
45. "A Photopolymerized Sealant for Corneal Lacerations."
Daijiro Miki, Anne Pfister-Serres, Kouros A. Dastghieb, Kimberly A. Smeds, Makoto Inoue, Diane L. Hatchell, and Mark W. Grinstaff
Cornea, **2002**, *21*, 393-399.
46. "Hybrid Dendritic-Linear Polyester-ethers for In Situ Photopolymerization."
Michael A. Carnahan, Crystan Middleton, Jitek Kim, Terry Kim, and Mark W. Grinstaff
Journal of the American Chemical Society, **2002**, *124*, 5291-5293.
47. "Synthesis and Characterization of Carbohydrate-Based Phospholipids."
Geoffrey S. Hird, Thomas J. McIntosh, Anthony A. Ribeiro, and Mark W. Grinstaff
Journal of the American Chemical Society, **2002**, *124*, 5983-5992.
48. "Nucleobase and 5'-Probes for DNA Redox Chemistry."
Xi Hu, Stephen J. Lee, and Mark W. Grinstaff
in *Methods in Enzymology*, **2002**, *353*, 548-566.
49. "Biodendrimers: New Polymeric Biomaterials for Tissue Engineering."
Mark W. Grinstaff
Chemistry: A European Journal, **2002**, *8*, 2838-2846 (invited concepts).
50. "Synthesis and Characterization of a Dianionic Carbohydrate-Based Phospholipids."
Geoffrey S. Hird and Mark W. Grinstaff
Chemistry and Physics of Lipids, **2002**, *120*, 1-7.

51. "Synthesis and Characterization of π -Stacked Phenothiazine Oligodeoxynucleotides."
S. A. Nadeem Hashmi, Xi Hu, Chad E. Immoos, Stephen J. Lee, and Mark W. Grinstaff
Organic Letters, **2002**, 4, 4571-4574.
52. "Engineered Porcine Arteries: Effects of Scaffold Modification."
Vikas Prabhakar, Mark W. Grinstaff, Javier Alarcon, Chirs Knors, Amy K. Solan, and
Laura E. Niklason
Journal of Biomedical Materials Research, **2003**, 67A, 303-311.
53. "Polycarbonate and Polycarbonate-esters Synthesized from Biocompatible Building Blocks
of Glycerol and Lactic Acid."
William C. Ray III and Mark W. Grinstaff
Macromolecules, **2003**, 36, 3557-3562.
54. "Unconventional Phospholipid Backbones: Carbohydrate-based and Other Unique Lipid
Structures."
Geoffrey S. Hird, Stephen J. Lee, and Mark W. Grinstaff
in *Self-Assembly*, R.H. Robinson (Ed.), IOS Press, **2003**, 121-131.
55. "The Convergent Synthesis of Poly(glycerol-succinic acid) Dendritic Macromolecules."
Nathanael R. Luman, Kimberly A. Smeds, and Mark W. Grinstaff
Chemistry: A European Journal, **2003**, 9, 5618-5626.
56. "Intramolecular Electrocatalysis of 8-oxo-Guanine Oxidation: Secondary Structure Control
of Electron Transfer in Osmium-Labeled Oligonucleotides."
Rebecca C. Holmberg, Mark T. Tierney, Eric X. Berg, Mark W. Grinstaff, and H. Holden
Thorp
Inorganic Chemistry, **2003**, 42, 6379-6387.
57. "Dendritic Molecular Capsules for Hydrophobic Compounds."
Meredith T. Morgan, Michael A. Carnahan, Chad E. Immoos, Anthony R. Ribeiro, Stella
Finkelstein, Stephen J. Lee, and Mark W. Grinstaff
Journal of the American Chemical Society, **2003**, 125, 15485-15489.
58. "Patterning Conductive Polymer Nanostructures."
Shaun F. Filocamo and Mark W. Grinstaff
Encyclopedia of Nanoscience and Nanotechnology, **2004**, 2615-2626 (invited article).
59. "Photocrosslinkable Hyaluronan as a Scaffold for Articular Cartilage Repair."
Dana I. Nettles, T. Parker Vail, Meredith T. Morgan, Mark W. Grinstaff, and Lori A. Setton
Annals of Biomedical Engineering, **2004**, 32, 1-7.
60. "New Dendritic Adhesives for Sutureless Ophthalmic Surgeries: In Vitro Studies of Corneal
Laceration Repair."
Andrew J. Velazquez, Michael A. Carnahan, Johannes Kristinsson, Sandra Stinnett, Mark
W. Grinstaff, and Terry Kim
Archives of Ophthalmology, **2004**, 122, 867-870.

61. "Conformationally Gated Electrochemical Gene Detection."
Chad E. Immoos, Stephen J. Lee, and Mark W. Grinstaff
ChemBioChem, **2004**, 5, 1100-1103.
62. "Dendritic Polymers Composed of Glycerol and Succinic Acid: Synthetic Methodologies and Medical Applications."
Nathanael R. Luman, Terry Kim, and Mark W. Grinstaff
Pure and Applied Chemistry, **2004**, 76, 1375-1385 (invited article).
63. "Supramolecular Assemblies of Nucleoside-based Amphiphiles."
Louis Moreau, Philippe Barthélémy, Mohamed El Maataoui, and Mark W. Grinstaff
Journal of the American Chemical Society, **2004**, 126, 7533-7539.
64. "DNA-PEG-DNA Triblock Macromolecules for Reagentless DNA Detection."
Chad E. Immoos, Stephen J. Lee, and Mark W. Grinstaff
Journal of the American Chemical Society, **2004**, 126, 10814-10815.
65. "Charge-Reversal Amphiphiles for Gene Delivery."
Carla A. H. Prata, Yuxing Zhao, Philippe Barthélémy, Yougen Li, Dan Luo, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
Journal of the American Chemical Society, **2004**, 126, 12196-12197.
66. "Dendritic Macromers as In Situ Polymerizing Biomaterials for Securing Cataract Incisions."
Michel Wathier, Pil J. Jung, Michael A. Carnahan, Terry Kim, and Mark W. Grinstaff
Journal of the American Chemical Society, **2004**, 126, 12744-12745.
67. "Supramolecular Assemblies of DNA with Neutral Nucleoside Amphiphiles."
Philippe Barthélémy, Carla A. H. Prata, Shaun F. Filocamo, Chad E. Immoos, Benjamin W. Maynor, S. A. Nadeem Hashmi, Stephen J. Lee, and Mark W. Grinstaff
Chemical Communications, **2005**, 1261-1263.
68. "Vesicle Formation from a Synthetic Adenosine Based Lipid."
Louis Moreau, Mark W. Grinstaff, and Philippe Barthélémy
Tetrahedron Letters, **2005**, 46, 1593-1596.
69. "Dendritic Supramolecular Assemblies for Drug Delivery."
Meredith T. Morgan, Michael A. Carnahan, Stella Finkelstein, Stephen J. Lee, and Mark W. Grinstaff
Chemical Communications, **2005**, 4309-4311.
70. "Novel Tissue Adhesives to Secure Laser in situ Keratomileusis Flaps."
Paul C. Kang, Michael A. Carnahan, Michel Wathier, Mark W. Grinstaff, and Terry Kim
Journal of Cataract and Refractive Surgery, **2005**, 31, 1208-1212.
71. "Nucleic acid Complexing Glycosyl Nucleoside-Based Amphiphile."
Jerome Arigon, Carla A. H. Prata, Mark W. Grinstaff, and Philippe Barthélémy
Bioconjugate Chemistry, **2005**, 16, 864-872.

72. "Supramolecular Assemblies with DNA."
Philippe Barthélémy, Stephen J. Lee, and Mark W. Grinstaff
Pure and Applied Chemistry, **2005**, 77, 2133-2148 (Invited Special Topic Article).
73. "Nucleoside Phosphocholine Amphiphile for In Vitro DNA Transfection."
Louis Moreau, Philippe Barthélémy, Yougen Li, Dan Luo, Carla A. H. Prata, and Mark W. Grinstaff
Molecular BioSystems, **2005**, 1, 260-264.
74. "Designer Materials for Nucleic Acid Delivery."
Theresa M. Reineke and Mark W. Grinstaff
Material Research Society Bulletin, **2005**, 30, 635-639 (Invited Editorial Article/Special Issue on Gene Delivery).
75. "Synthesis and Aqueous Aggregation Properties of Amphiphilic Surface-Block Dendrimers."
Nathanael R. Luman and Mark W. Grinstaff
Organic Letters, **2005**, 7, 4863-4866.
76. "Biodendrimer-Based Hydrogel Scaffolds for Cartilage Tissue Repair."
Serge H.M. Söntjens, Dana L. Nettles, Michael A. Carnahan, Lori A. Setton, and Mark W. Grinstaff
Biomacromolecules, **2006**, 7, 310-316.
77. "Synthesis of Generational Polyester Dendrimers Derived from Glycerol and Succinic or Adipic Acid."
Michael A. Carnahan and Mark W. Grinstaff
Macromolecules, **2006**, 39, 609-616.
78. "Cationic Nucleoside Lipids for Gene Delivery."
Pauline Chabaud, Michel Camplo, Dominique Payet, Guillaume Serin, Louis Moreau, Philippe Barthélémy, and Mark W. Grinstaff
Bioconjugate Chemistry, **2006**, 17, 466-472.
79. "Self-assembled Microspheres from F-Block Elements and Nucleoamphiphiles."
Louis Moreau, Fabio Ziarelli, Mark W. Grinstaff, and Philippe Barthélémy
Chemical Communications, **2006**, 1661-1663.
80. "Probing the Electronic-Structure of Platinum(II) Chromophores: Crystal Structures, NMR Structures, and Photophysical Properties of Six New Bis- and Di- Phenolate/Thiolate Pt(II) Diimine Chromophores."
Mark T. Tierney, Julia A. Weinstein, E. Stephen Davies, Karel Base, Anthony A. Robeiro, and Mark W. Grinstaff
Inorganic Chemistry, **2006**, 45, 4544-4555.

81. "In Situ Polymerized Hydrogels for Repairing Scleral Incisions Used in Pars Plana Vitrectomy Procedures."
Michel Wathier, M. Starck Johnson, Michael A. Carnahan, Claxton Baer, Brooks W. McCuen, Terry Kim, and Mark W. Grinstaff
ChemMedChem, **2006**, 1, 821-825.
82. "A Fluorocarbon Nucleoamphiphile for the Construction of Actinide Loaded Microspheres."
Louis Moreau, Nathalie Campins, Mark W. Grinstaff, and Philippe Barthélémy
Tetrahedron Letters, **2006**, 47, 7117-7120.
83. "Hydrogels Formed by Multiple Peptide Ligation Reactions to Fasten Corneal Transplants."
Michel Wathier, M. Starck Johnson, Terry Kim, and Mark W. Grinstaff
Bioconjugate Chemistry, **2006**, 17, 873-876.
84. "Peptide-PEG Amphiphiles as Cytophobic Coatings for Mammalian and Bacterial Cells."
Daniel J. Kenan, Elisabeth B. Walsh, Steven R. Meyers, George A. O'Toole, Erin G. Carruthers, Woo K. Lee, Stefan Zauscher, Carla A. H. Prata, and Mark W. Grinstaff
Chemistry and Biology, **2006**, 13, 695-700.
85. "Dendrimer-Encapsulated Camptothecins: Increased Solubility, Cellular Uptake, and Cellular Retention Affords Enhanced Anticancer Activity In vitro."
Meredith T. Morgan, Yuka Nakanishi, David J. Kroll, Aaron P. Griset, Michael A. Carnahan, Michel Wathier, Nicholas H. Oberlies, G. Manikumar, Mansukh C. Wani, and Mark W. Grinstaff
Cancer Research, **2006**, 66, 11913-11921.
86. "Synthesis and Characterization of Bola-type Amphiphilic Dendritic Macromolecules."
Lovorka Degoricija, Michael A. Carnahan, C. Starck Johnson, Terry Kim, and Mark W. Grinstaff
Macromolecules, **2006**, 39, 8952-8958.
87. "Immobilized Hydrogels for High Throughput Screening of Molecular Interactions."
Melissa M. Dominguez, Michel Wathier, Mark W. Grinstaff, and Scott E. Schaus
Analytical Chemistry, **2007**, 79, 1064-1066.
88. "Photocrosslinkable Biodendrimers as Ophthalmic Adhesives for Central Lacerations and Penetrating Keratoplasties."
Lovorka Degoricija, C. Starck Johnson, Michel Wathier, Terry Kim, and Mark W. Grinstaff
Investigative Ophthalmology and Visual Science, **2007**, 48, 2037-2042.
89. "Endothelialization of Titanium Surfaces."
Steven R. Meyers, Paul T. Hamilton, Elisabeth B. Walsh, Daniel J. Kenan, and Mark W. Grinstaff
Advanced Materials, **2007**, 19, 2492-2498.
90. "Nanostructured Assemblies from Nucleotide Based Amphiphiles."
Nathalie Campins, Philippe Dieudonné, Mark W. Grinstaff, and Philippe Barthélémy
New Journal of Chemistry, **2007**, 31, 1928-1934.

91. "Poly(carbonate-ester)s Based on Units of 6-Hydroxyhexanoic Acid and Glycerol."
Jesse B. Wolinsky, William C. Ray III, Yolonda L. Colson, and Mark W. Grinstaff
Macromolecules, **2007**, *40*, 7065-7068.
92. "Designing Hydrogel Adhesives for Corneal Wound Repair."
Mark W. Grinstaff
Biomaterials, **2007**, *28*, 5205-5214 (invited leading opinion article).
93. "A New Helper Phospholipids for Gene Delivery."
Carla A. H. Prata, Yougen Li, Dan Luo, Thomas J. McIntosh, Philippe Barthélémy, and Mark W. Grinstaff
Chemical Communications, **2008**, 1566-1568.
94. "Lipophilic Peptides for Gene Delivery."
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62. “Charge-reversible Lipids for DNA Delivery.”
Carla A. H. Prata, Philippe Barthelemy, Yougen Li, Dan Luo, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
FASEB Journal, 20, A73-A73 Part 1, March 6, **2006**.
63. “Non-viral Charge Reversal Vectors for DNA Delivery.”
Carla A. H. Prata, Yougen Li, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, New York, New York, **2006**, 4486-448.
64. “IFBMs: A Toolkit for Manipulating Material-Biological Interactions.”
Steven R. Meyers, Xiaojuan Khoo, Erin G. Carruthers, Daniel J. Kenan, and Mark W. Grinstaff
Trans. 2006th International Electrochemical Society Meeting, Cancun, Mexico, **2006**.
65. “A Novel Liquid Ocular Bandage.”
Terry Kim
Cataract & Refractive Surgery Today Europe, Cataract Surgery Feature Story, November/December **2006**.
66. “Improvement of Hydrogel Stability by O,N Acyl Rearrangement: A New Approach for Securing Ocular Wounds.”
Michel Wathier, Jason Berlin, and Mark W. Grinstaff.
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 122.
67. “Characterization of Poly(2-hydroxyethyl methacrylate) Hydrogels for Corneal Grafts
Abigail M. Oelker and Mark W. Grinstaff
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 125.
68. “Biodegradable and Tunable Poly(carbonate-ester)s Based on Units of γ -caprolactone and Glycerol.”
Jesse Wolinsky and Mark W. Grinstaff
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 350.
69. “The Use of Interfacial Peptide Coatings for Vascular Device Applications.”
Steven R. Meyers, Daniel J. Kenan, and Mark W. Grinstaff.
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 493.
70. “Acid-Sensitive Polymeric Nanospheres for Drug Delivery.”
Aaron P. Griset and Mark W. Grinstaff
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 551.

71. “Interfacial Peptide Coatings Facilitate Biological Control on Material Surfaces
Steven R. Meyers, Daniel J. Kenan, Amy K. Solan, and Mark W. Grinstaff.
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**, 766.
72. “Synthesis of High Molecular Weight Polymers Using ROMP.”
Michel Wathier, Stephanie S. Stoddart, and Mark W. Grinstaff
Polym. Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
73. “Biodendrimer-based Hydrogel Scaffolds for Cartilage Tissue Repair.”
Prashant N. Bansal, Lovorka Degoricija, Neel S. Joshi, Brian Snyder, and Mark W. Grinstaff.
PMSE Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
74. “Interfacial Peptides for the Cellularization of Titanium Metal.”
Steven R. Meyers, Xiaojuan Khoo, Daniel J. Kenan, and Mark W. Grinstaff
PMSE Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
75. “Characterization of Collagen-Modified Poly(2-hydroxyethyl methacrylate) Hydrogels for Use as Corneal Implants.”
Abigail M. Oelker and Mark W. Grinstaff
Polym. Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
76. “Functionalizable poly(carbonate-co-ester)s for the Preparation of Covalently-labeled Nanoparticles.”
Jesse B. Wolinsky and Mark W. Grinstaff
PMSE Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
77. “Cytotoxicity and Cellular Uptake of a Dendrimer-encapsulated Camptothecin.”
Aaron P. Griset, Meredith T. Morgan, Yuka Nakanishi, David J. Kroll, Aaron P. Griset, Michael A. Carnahan, Michel Wathier, Nicholas H. Oberlies, G. Manikumar, Mansukh C. Wani, and Mark W. Grinstaff
PMSE Prepr., 234th *American Chemical Society*, Boston, MA, **2007**.
78. “Polysaccharide Mimics for Lubrication of Cartilage Joints.”
Michel Wathier, Stephanie Stoddart, Prashant Bansal, Brian D. Snyder, and Mark W. Grinstaff
Trans. 2008 World Biomaterials Congress, Amsterdam, Netherlands, **2008**. #55
79. “Synthesis, Biocompatibility, and Degradation Studies of Pseudopolysaccharides.”
Stephanie Stoddart, Michel Wathier, Brian D. Snyder, and Mark W. Grinstaff
Trans. 2008 World Biomaterials Congress, Amsterdam, Netherlands, **2008**. #56
80. “Dendrimers for Repairing Cataract Incisions.”
Michel Wathier and Mark W. Grinstaff
Trans. 2008 World Biomaterials Congress, Amsterdam, Netherlands, **2008**. #1924
81. “The Effect of Spacer Length, Rigidity and Hydrophilicity of Charge-Reversal Amphiphiles on DNA and siRNA Delivery.”

- Xiao-Xiang Zhang, Carla A.H. Prata, Tom J. McIntosh, and Mark W. Grinstaff
12th Annual Meeting of the American Society of Gene Therapy, Molecular Therapy, 17, **2009**, S62.
82. “Amphiphiles Possessing a Tri-Peptide Head Group for DNA Delivery
 Xiao-Xiang Zhang, Carla A.H. Prata, Dan Luo, Tom J. McIntosh, and Mark W. Grinstaff
12th Annual Meeting of the American Society of Gene Therapy, Molecular Therapy, 17, **2009**, S189.
83. “Nanoparticle-based Drug Delivery of Chemotherapy via Lymphatic Migration in a Large Animal Model.”
 Onkar Khullar, Joseph Winer, Aaron P. Griset, John V. Frangioni, Yolonda L. Colson, and Mark W. Grinstaff
Conference Information: 95th Annual Clinical Congress of the American-College-of-Surgeons/64th Annual Sessions of the Owen H Wangensteen Forum on Fundamental Surgical Problems, Journal of the American College of Surgeons, 209, **2009**, S31.
84. “Paclitaxel-Eluting Polymer Film Reduces Locoregional Recurrence in Mouse Model of Sarcoma: A Novel Investigational Therapy.”
 Rong Liu, Jackie Wade, Jesse B. Wolinsky, Joseph Walpole, Emily Southard, Lucian R. Chirieac, Mark W. Grinstaff, and Yolonda L. Colson
63rd Annual Cancer Symposium of the Society-of-Surgical-Oncology, Annals Surgical Oncology, 17, **2010**, S31-S32.
85. “Expansile Nanoparticles: Synthesis, Characterization, and In vivo Efficacy.”
 Mark W. Grinstaff
Trans. 35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, 40.
86. “Lipopeptides Possessing Tripeptide, not Dipeptide, Head Groups Show Efficient DNA and siRNA Delivery.”
 Xiao-Xiang Zhang and Mark W. Grinstaff
Trans. 35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, 296.
87. “Synthesis and Characterization of a Charge-Reversal Photo-Active Amphiphile.”
 Caroline M. LaManna, Jiazuo H. Feng, and Mark W. Grinstaff
Trans. 35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, 554.
88. “PEGylated-Peptide Coatings for the Inhibition of Pathogenic Biofilms on Titanium Metal.”
 Xiaojuan Khoo, George O’Toole, Daniel J. Kenan, Mark W. Grinstaff
Trans. 35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, 840.
89. “Synthesis, Characterization and Lymphatic Trafficking of Polymeric Nanoparticles.”
 Kimberly Ann V. Zubris, Onkar Khullar, John V. Frangioni, Yolonda L. Colson and Mark W. Grinstaff
Trans. 35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, 918.

90. “Nanotechnology in Thoracic Surgery.”
Morgan D. Schulz, Onkar Khullar, John V. Frangioni, Mark W. Grinstaff, and Yolonda L. Colson
Conference Information: 2nd International Biannual Minimally Invasive Thoracic Surgery Summit, Annals of Thoracic Surgery, 89, **2010**, S2188-S2190.
91. “Supramolecular Ionic Networks.”
Mark Grinstaff
POLY Prepr., 240th American Chemical Society, Boston, MA, **2010**, 5.
92. “Dendritic polymers for ocular wound repair: From concept to clinical use – the HyperBranch Medical Technology Story.”
Mark Grinstaff
POLY Prepr., 240th American Chemical Society, Boston, MA, **2010**, 18.
93. “Expansile Nanoparticles: Synthesis, Characterization, and In vivo Efficacy in Lung and Mesothelioma Tumor Models.”
Mark W. Grinstaff
PMSE Prepr., 234th American Chemical Society, Boston, MA, **2010**, 60.

Oral Communications and Invited Seminars:

1. *Southern California ACS, Undergraduate Research Conferences*, Los Angeles, CA, **1986**.
2. *Southern California ACS, Undergraduate Research Conferences*, Los Angeles, CA, **1987**.
3. *American Physical Society*, Cincinnati, OH, **1991**.
4. *Sigma Xi Research Talk*, University of Illinois, Urbana, IL, **1991**.
5. *Symposium on Macromolecular Assemblies*, American Chemical Society, Atlanta, GA, **1991**.
6. *T. S. Piper Award Talk*, University of Illinois, Urbana, IL, **1991**.
7. *IEEE Engineering in Medicine and Biology Society Meeting*, San Diego, CA, **1993**.
8. *University of Minnesota*, Minneapolis, MN, **1994**.
9. *Nobel Laureate Signature Award Address*, American Chemical Society, San Diego, CA, **1994**.
- 10-11. *Society for Biomaterials*, Boston, MA, **1994**.
12. *University of California*, San Diego, CA, **1994**.
13. *University of California*, Irvine, CA, **1995**.
14. *University of California*, Riverside, CA, **1995**.
15. *University of California*, Los Angeles, Chemical Engineering, CA, **1995**.
16. *Princeton University*, Princeton, NJ, **1995**.
17. *Rice University*, Baylor, TX, **1995**.
18. *Harvard University*, Boston, MA, **1995**.
19. *University of Miami*, Miami, FL, **1995**.
20. *University of California*, Irvine, Chemical Engineering, Irvine, CA, **1995**.
21. *Occidental College*, Los Angeles, CA, **1995**.
22. *University of Strasbourg*, Strasbourg, France, **1995**.
23. *Pennsylvania State*, PA, **1995**.
24. *University of Utah*, Salt Lake City, UT, **1995**.
25. *Georgia Institute of Technology*, Atlanta, GA, **1995**.
26. *Tufts University*, Boston, MA, **1995**.
27. *University of Rochester*, Rochester, NY, **1996**.
28. *University of California*, Davis, CA, **1996**.
29. *University of North Carolina State*, Raleigh, NC, **1996**.
30. *University of California*, Los Angeles, CA, **1996**.
31. *Duke University*, Durham, NC, **1996**.
32. *ICCC Meeting*, Vancouver, Canada, **1996**.

33. "Synthesis and Characterization of Novel Echo-Contrast Agents."
Mark W. Grinstaff
ERC Ultrasound Research Conference, Durham, NC, **1997** (invited lecture).

34. "Synthesis of Novel Echo-Contrast Agents."
Mark W. Grinstaff
Mallinkrodt, St. Louis, MO, **1997** (invited lecture).

35. "Photocrosslinkable Microcapsules for Islet Transplantation."
Mark W. Grinstaff
NSF Materials Workshop, Pasadena, CA, **1997** (invited lecture).

36. “New Oligonucleotide Modification Procedures.”
Mark W. Grinstaff
PE Applied Biosystems, San Francisco, CA, **1998** (invited lecture).
37. “Automated Solid-Phase Synthesis of Metallo-Oligonucleotides.”
Mark W. Grinstaff, Amy E. Beilstein, and Sheob I. Khan
NSF Inorganometallic Workshop, Knoxville, TN, **1998** (invited lecture).
38. “Synthesis of Photocrosslinkable Hyaluronic Acid Gels for Cell Encapsulation.”
Mark W. Grinstaff, Kimberly A. Smeds, Diane L. Hatchell, Peter Saloupis, and Anne Pfister-Serres
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-CPT #12.
39. “Nonlinear Optical Structure-Property Relationships of Platinum Chromophores.”
Mark W. Grinstaff, Alain Fort, Karl Base, and Mark T. Tierney
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #304.
40. “Automated Solid-Phase Synthesis of Metallo-Oligonucleotides.”
Mark W. Grinstaff, Shoeb I. Khan, Amy E. Beilstein, and Mark T. Tierney
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #653.
41. “Synthesis of Novel Polysaccharides for Biomedical Applications.”
Mark W. Grinstaff
Symposium in Cellular and Biosurface Engineering, Durham, NC, **1998** (invited lecture).
42. “Photocrosslinkable Microcapsules for Islet Encapsulation.”
Mark W. Grinstaff
Department of Biomedical Engineering, Durham, NC, **1998** (invited lecture).
43. “Automated Solid-Phase Synthesis of Ruthenium Labeled-Oligonucleotides.”
Mark W. Grinstaff
Appalachian State, Department of Chemistry, Boone, NC, **1999** (invited lecture).
44. “Synthesis and Photophysical Properties of Ruthenium Labeled DNA.”
Mark W. Grinstaff
1st Annual Novartis Science Symposium, University of North Carolina at Greensboro, Greensboro, NC, **1999** (invited lecture).
45. “A New Paradigm for Corneal Wound Healing Research.”
W. Craig Fowler, Alan D. Proia, Daniel H. Chang, Bruce C. Roberts, and Mark W. Grinstaff
Department of Ophthalmology, Duke Medical Center, Durham, NC, **1999** (invited lecture).
46. “Synthesis and Photophysical Properties of DNA Labeled with Ru(bpy)₃²⁺.”
Mark W. Grinstaff
Boston College, Department of Chemistry, Boston, MA, **1999** (invited lecture).

47. "Site-Specifically Labeled DNA for Electron-Transfer Reactions."
Mark W. Grinstaff
International Conference on Photochemistry, Durham, NC, **1999**, ABS# C-1.
48. "Synthesis and Photophysical Properties of Ru(bpy)₃²⁺ Labeled Oligonucleotides."
Mark W. Grinstaff, Shoeb I. Khan, Amy E. Beilstein, Xi Hu, Mark T. Tierney, Gregory D. Smith, and Milan Sykora
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #496.
49. "The Application of Photocrosslinkable Hyaluronan as a Corneal Perforation Sealant."
Mark W. Grinstaff, Daijiro Miki, Anne Pfister-Serres, Kimberly A. Smeds, Kouros A. Dastghieb, Makoto Inoue, and Diane L. Hatchell
1st Joint BMES/EMBS Meeting, Atlanta, GA, **1999**. BMES/EMBS ABS #717.
50. "Synthesis of Photocrosslinkable Polysaccharides for Corneal Perforations."
Mark W. Grinstaff
Closure Inc., Research Triangle Park, NC, **1999** (invited lecture).
51. "Synthesis of Novel Polysaccharides for Corneal Perforations."
Mark W. Grinstaff
Procter and Gamble Inc., Cincinnati, OH, **1999** (invited lecture).
52. "Electron Transfer Between Covalently Attached Redox Probes in DNA: Observation of the Electron-Transfer Intermediate."
Mark W. Grinstaff
PEW Meeting, Cozumel, Mexico, **2000** (invited lecture).
53. "Electron Transfer Between Covalently Attached Redox Probes in DNA: Observation of the Electron-Transfer Intermediate."
Mark W. Grinstaff
34th International Conference on Coordination Chemistry, Edinburgh, Scotland, **2000**, ICC 34, Oral Lecture 1066 (Elsevier Travel Award Recipient).
54. "Long-Distance Electron Transfer in an Oligodeoxynucleotide Duplex: Observation of the Electron-Transfer Product."
Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-ABS-IC #161.
55. "Biopolymers: From DNA-Mediated Electron-Transfer to Sutureless Surgery."
Mark W. Grinstaff
J & J Corporate Biomaterials Center, Somerville, NJ, **2000** (invited lecture).
56. "Biopolymers for Sutureless Surgery."
Mark W. Grinstaff
NSF Materials Workshop VIII, Portland, OR, **2000** (invited lecture).

57. "A Photocrosslinkable Polysaccharide Sealant for Corneal Perforations."
Mark W. Grinstaff
The American College of Surgeons Clinical Congress: Surgical Applications of Tissue Sealants, Chicago, IL **2000** (invited lecture).
58. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
University of North Carolina, Chapel Hill, NC **2000** (invited lecture).
59. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Boston University, Boston, MA, **2000** (invited lecture).
60. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Northwestern University, Evanston, IL, **2000** (invited lecture).
61. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Georgia Institute of Technology, Atlanta, GA, **2000** (invited lecture).
62. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Emory University, Atlanta, GA, **2000** (invited lecture).
63. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Georgia State University, Atlanta, GA, **2000** (invited lecture).
64. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
University of Illinois at Urbana-Champaign, Urbana, IL, **2000** (invited lecture).
65. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
California Institute of Technology, Pasadena, CA, **2000** (invited lecture).
66. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
University of California at Los Angeles, Los Angeles, CA, **2000** (invited lecture).
67. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
University of California at San Diego, CA, San Diego, CA, **2000** (invited lecture).
68. "Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery."
Mark W. Grinstaff
Duke University, Durham, **2000** (invited lecture).

69. “Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery.”
Mark W. Grinstaff
University of Pennsylvania, Philadelphia, PA, **2000** (invited lecture).
70. “Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery.”
Mark W. Grinstaff (invited lecture).
Princeton University, Trenton, NJ, **2000**.
71. “Development of a Novel Photocrosslinkable Hyaluronan Matrix for Cartilage Repair.”
Kimberly A. Smeds, Jean Y. Wang, Anthony E. Baer, Lori A. Setton, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #LL1.3.
72. “Biopolymers for In Situ Polymerization.”
Mark W. Grinstaff
Morphogen Inc, San Diego, CA **2000** (invited lecture).
73. “Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery.”
Mark W. Grinstaff
Free University of Brussels VUB, Department of Chemistry, Brussels, Belgium, **2000**
(invited lecture).
74. “Biopolymers for Sutureless Surgery.”
Mark W. Grinstaff
U.S. Army Institute of Surgical Research, San Antonio, TX **2001** (invited lecture).
75. “DNA-Mediated Electron Transfer.”
Mark W. Grinstaff
Xanthon Inc, Research Triangle Park, NC **2001** (invited lecture).
76. “Synthesis and Characterization of Metallodendrimers.”
Mark W. Grinstaff
24th Asilomar Conference on Polymeric Materials, Pacific Grove, CA **2001** (invited lecture).
77. “Carbohydrosomes and Biodendrimers.”
Mark W. Grinstaff
The Dow Chemical Company, Midland, MI **2001** (invited lecture).
78. “Biopolymers for Sutureless Surgery.”
Mark W. Grinstaff
Inspire Pharmaceuticals Inc., Durham, NC **2001** (invited lecture).
79. “Physical Characterization of Novel Carbohydrate Based Phospholipid Vesicles for Drug Delivery.”
Geoffrey S. Hird and Mark W. Grinstaff
27th Biomaterials Annual Meeting, Saint Paul, MN, **2001**. ABS #58.

80. “Synthesis and Characterization of Biodendrimers: New Polymers for Biomedical Applications.”
Mark W. Grinstaff
4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, **2001** (invited lecture).
81. “Synthesis and Physical Characterization of Carbohydrate-Based Phospholipids and Poly(glycerol-lactic acid) Dendrimers.”
Mark W. Grinstaff
Gordon Conference “Chemistry of Supramolecules and Assemblies,” New London, CT, **2001** (invited lecture).
82. “Photocrosslinkable Polymers for Biomedical Applications.”
Mark W. Grinstaff, Michael A. Carnahan, Peter S. Fleming, Diane L. Hatchell, Nathanael R. Luman, Meredith T. Morgan, Sandip Patel, William C. Ray III, Anne Pfister-Serres, Kimberly A. Smeds, Katherine L. Touw, and Elisabeth B. Walsh
222nd American Chemical Society, Symposium on Tailored Synthetic Polymers as Biomaterials, Chicago, IL, **2001**. ACS-ABS-POLY #049.
83. “Metallo-Oligonucleotides for DNA Mediated Electron-Transfer and DNA Hybridization Detection Studies.”
Mark W. Grinstaff
International Conference on Bioinorganic Chemistry, Florence, Italy, **2001** (invited lecture; *J. Inorg. Biochem.* **2001**, 86, 53).
84. “Synthesis and Characterization of Carbohydrosomes and Biodendrimers.”
Mark W. Grinstaff
U.S. Army Research Laboratory, Aberdeen Proving Ground, MD, **2001** (invited lecture).
85. “Biopolymers: From DNA-Mediated Electron Transfer to Sutureless Surgery.”
Mark W. Grinstaff
University of Delaware, Department of Chemistry, DE, **2001** (invited lecture).
86. “Metallo-Oligonucleotides for DNA Mediated Electron-Transfer and DNA Hybridization Detection Studies.”
Mark W. Grinstaff
U.S. Army Research Laboratory, Adelphi, MD, **2001** (invited lecture).
87. “Charge-Transfer Reactions in DNA.”
Mark W. Grinstaff
University of Tokyo, Graduate School of Sciences, Tokyo Japan, **2002** (invited lecture).
88. “Biodendrimers: New Polymeric Biomaterials for Tissue Engineering.”
Mark W. Grinstaff
JST/NAS International Interdisciplinary Research Exchange Symposium
Tokyo, Japan **2002** (invited lecture).

89. "Charge-Transfer Reactions in DNA."
Osaka University, Department of Chemistry, Osaka, Japan, 2002 (invited lecture).
90. "Biodendrimers and Carbohydrosomes: New Materials for Pharmaceutical and Tissue Engineering Applications."
Mark W. Grinstaff
Takeda Chemical Industries, Ltd., Osaka Japan, 2002 (invited lecture).
91. "Biodendrimers: New Polymeric Biomaterials for Tissue Engineering."
Mark W. Grinstaff
University of Tokyo, Graduate School of Engineering, Tokyo, Japan, 2002 (invited lecture).
92. "Novel Biodendrimers for Sutureless Corneal Surgery."
Terry Kim, Michael A. Carnahan, Crystan Middleton, Paul C. Kang, and Mark W. Grinstaff
Duke Eye Center, Chairman's Science of Disease Seminar, Durham, NC, 2002 (invited lecture).
93. "Electron-Transfer Reactions in DNA."
Mark W. Grinstaff
Wayne State University, Department of Chemistry, Detroit, MI, 2002 (invited lecture).
94. "Biodendrimers: Nanosized Polymers for Medical Applications."
Mark W. Grinstaff
28th Biomaterials Annual Meeting, Nanobiomaterials Workshop, Tampa, FL, 2002 (invited lecture).
95. "Biodendrimer Sealants for Corneal Lacerations."
Mark W. Grinstaff
28th Biomaterials Annual Meeting, Tampa, FL, 2002. ABS# 176.
96. "Polymers for Medical Applications."
Mark W. Grinstaff
Duke University/NSF High School Teachers Outreach Program, Durham, NC, 2002.
97. "Biodendrimers: New Polymeric Biomaterials for Tissue Engineering."
Mark W. Grinstaff
Dupont Chesapeake Farms Conference, Chestertown, MD, 2002 (invited lecture).
98. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
Wayne State University, Department of Chemistry and Chemical Engineering, Detroit, MI, 2002 (invited lecture).
99. "Biodendrimers: New Polymeric Biomaterials for Tissue Engineering."
Mark W. Grinstaff
Université d'Avignon et des Pays de Vaucluse, Departement de Chimie, Avignon, France, 2002, (invited lecture).

100. “Exploiting DNA Mediated Charge-Transfer Dynamics for the Design of a Conformationally Gated Detection Device.”
Mark W. Grinstaff
Workshop on Electrochemical Biosensors, U.S. Army Research Laboratory, Adelphi, MD, 2002 (invited lecture).
101. “Biodendrimers: New Polymeric Materials for Medical Applications.”
Mark W. Grinstaff
Northwestern University, Department of Biomedical Engineering, Evanston, IL, 2002 (invited lecture).
102. “Biodendrimers: New Polymeric Materials for Tissue Engineering.”
Mark W. Grinstaff
Appalachian State University, Department of Chemistry, Boone, NC, 2002 (invited lecture).
103. “Biodendrimers: New Materials for Medicine.”
Mark W. Grinstaff
Duke University, Department of Chemistry, Durham, NC, 2002 (invited lecture).
104. “Biodendrimers: New Materials for Medicine.”
Mark W. Grinstaff
Michigan State University, Department of Chemistry, East Lansing, MI, 2002 (invited lecture).
105. “Biodendrimers: New Materials for Medicine.”
Mark W. Grinstaff
University of Michigan, Department of Chemistry, Ann Arbor, MI, 2002 (invited lecture).
106. “Biodendrimers: New Materials for Medicine.”
Mark W. Grinstaff
University of Chicago, Department of Chemistry, Colloquium Series, Chicago, IL, 2002 (invited lecture).
107. “Bioadhesives and Repellents.”
Mark W. Grinstaff and Daniel J. Kenan
Pall Corporation, Port Washington, NY, 2002 (invited lecture).
108. “Biodendrimers: New Materials for Medicine.”
Mark W. Grinstaff
University of Oregon, Department of Chemistry, Eugene, OR, 2003 (invited lecture).
109. “Photocrosslinkable Polymers for Ophthalmic Surgeries.”
Mark W. Grinstaff
Oregon Health Science University, Casey Eye Institute, Portland, OR, 2003 (invited lecture).
110. “Biodendrimers: New Materials for Medical Applications.”
Mark W. Grinstaff
Vanderbilt University, Vanderbilt Institute of Chemical Biology Colloquium Series, Nashville, TN, 2003 (invited lecture).

111. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
Colorado Sate University, Department of Chemistry, Fort Collins, CO, 2003 (invited lecture).
112. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
University of Minnesota, Department of Biomedical Engineering, Minneapolis, MN, 2003 (invited lecture).
113. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
Boston University, Department of Chemistry, Boston, MA, 2003 (invited lecture).
114. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
University of California at Los Angeles, Department of Materials Science and Engineering, Los Angeles, CA, 2003 (invited speaker).
115. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
University of California at Davis, Department of Biomedical Engineering, Davis, CA, 2003 (invited lecture).
116. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
University of Massachusetts Amherst, Department of Polymer Science and Engineering, Amherst, MA, 2003 (invited lecture).
117. "Photocrosslinked Dendritic Gels for Repairing Corneal Lacerations."
Mark W. Grinstaff
Pew Scholars Annual Meeting, Grand Bahama Island, 2003 (invited lecture).
118. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
University of Florida, Department of Chemistry, Gainesville, FL, 2003 (invited lecture).
119. "Peptide-PEG Conjugates as Cytophobic Coatings."
Elisabeth B. Walsh, Woo K. Lee, Stefan Zauscher, Daniel J. Kenan, and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Biomaterial Surfaces and Interfaces Symposium I, Reno, NV, 2003. ABS# 85.
120. "Using Combinatorial Phage Display Libraries and Chemical Synthesis to Create Novel Multifunctional Peptides as Interfacial Biomaterials."
Mark W. Grinstaff, Elisabeth B. Walsh, Xin Huang, James A. Parise Jr., Kelly A. Kirkwold, and Daniel J. Kenan
29th Biomaterials Annual Meeting, Biomaterial Surfaces and Interfaces Symposium I, Reno, NV, 2003. ABS# 221.

121. "Biodendrimers: New Materials for Medicine."
Mark W. Grinstaff
VIIth American German Polymer Symposium, Bayreuth, Germany, 2003 (invited lecture).
122. "Biodendrimers: New Materials for Repairing Corneal Wounds."
Mark W. Grinstaff
39th IUPAC and 86th Conference of the Canadian Society of Chemistry, Ottawa, Canada, 2003 (invited lecture). ABS# MS.3.024
123. "Biodendrimers: New Materials for Repairing Corneal Wounds."
Mark W. Grinstaff
International Dendrimer Symposium, Berlin, Germany, 2003 (invited lecture).
124. "Designing Functional Coatings for Metals and Plastics Using Combinatorial Phage Display Technology."
Elisabeth B. Walsh, James A. Parise Jr., Xin Huang, Mark W. Grinstaff, and Daniel J. Kenan
Biointerface 2003, Symposium: Tissue Engineering II, Savannah, GA, 2003.
125. "New Frontiers in Biomaterials: Biodendrimers and Peptidic Interfacial Biomaterials."
Mark W. Grinstaff
3M, St. Paul, MN, 2003 (invited lecture).
126. "Biodendrimers for Repair of Corneal Wounds: In Vitro and In Vivo Results."
Michael A. Carnahan, Paul Kang, Andy Velazquez, Terry Kim, Stella Finkelstein, and Mark W. Grinstaff
Materials Research Society, Boston, MA, 2003. ABS #F4.12.
127. "Biodendrimers: New Materials for Corneal Repair and Drug Delivery."
Mark W. Grinstaff
Department of Pharmacology, Boston University, Boston, MA, 2003 (invited lecture).
128. "Charge-Reversal Amphiphiles for Gene Delivery."
Mark W. Grinstaff
DNA Supramolecular Assemblies Workshop, Avignon, France, 2004 (invited lecture).
129. "Biodendrimers for Ophthalmic Tissue Engineering."
Mark W. Grinstaff
2004 Department of Biomedical Engineering Retreat, Falmouth, MA, 2004 (invited lecture).
130. "Dendritic Polymers as Ophthalmic Sealants."
Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers- From Synthesis to Applications, Philadelphia, PA, 2004. ACS-ABS-POLY #029 (invited lecture).

131. “Multi-Layer Dendrimer: Synthesis and NMR Characterization of an Encapsulated Dye.”
Meredith T. Morgan, Stephen J. Lee, and Mark W. Grinstaff
*228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-
From Synthesis to Applications*, Philadelphia, PA, **2004**. ACS-ABS-POLY #118.
132. “Novel Hydrogel Scaffolds for Cartilage Tissue Repair, using Photocrosslinkable
Biodendrimers.”
Serge H. M. Söntjens, Dana L. Nettles, Michael A. Carnahan, Lori A. Setton, and Mark W.
Grinstaff
*228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-
From Synthesis to Applications*, Philadelphia, PA, **2004**. ACS-ABS-POLY #192.
133. “Conformationally-Gated Electrochemical Gene Detection: The Hairpin and Wrap Assays
vs the Sandwich Assay.”
Chad E. Immoos, Stephen J. Lee, Mark W. Grinstaff
228nd American Chemical Society, Philadelphia, PA, **2004**. ACS-ABS-INOR #728.
134. “Novel Hydrogel Scaffolds for Cartilage Tissue Repair, using Photocrosslinkable
Biodendrimers.”
Mark W. Grinstaff
*Orthopedic Biomechanics Laboratory, Beth Israel Deaconess Medical Center, Harvard
Medical School*, Boston, MA, **2004** (invited lecture).
135. “Dendritic Polymers for Cartilage Tissue Engineering.”
Lori A. Setton, Serge H. M. Söntjens, Dana L. Nettles, Michael A. Carnahan, and Mark W.
Grinstaff
*2004 Division of Polymer Chemistry Biennial, Polymer Design for Biology: Activity and
Structure*, Savannah, GA, **2004** (invited lecture).
137. “Synthesis and Applications of Dendrimers.”
Mark W. Grinstaff
13th Annual ACS Regional Undergraduate Day, Boston, MA, **2004** (invited lecture).
138. “Biodendrimers for Ophthalmic and Orthopedic Applications.”
Mark W. Grinstaff
Johnson and Johnson Focused Giving Symposium, New Brunswick, NJ, **2004** (invited
lecture).
139. “Interfacial Biomaterials.”
Mark W. Grinstaff and Daniel J. Kenan
*Materials Research Society, Symposium: Biomimetic Surfaces/Cell-Material
Interactions/Biofunctional Peptide*. ABS #AA7.5/Z7.5 Boston, MA, **2004** (invited lecture).
140. “Biodendrimers for Ophthalmic and Orthopedic Applications.”
Mark W. Grinstaff
University of California, Berkeley, Department of Chemistry, Berkeley, CA, **2005** (invited
lecture).

141. “Biodendrimers for Medical Applications.”
Mark W. Grinstaff
University of Massachusetts, Boston, Department of Chemistry, Boston, MA, 2005 (invited lecture).
142. “Dendritic Polymer Adhesives for Corneal Wound Repair.” *ARVO: Nanotechnology and Nanomedicine: Applications for Vision, Fort Lauderdale, FL, 2005* (invited lecture).
143. “Biodendrimers for Medical Applications.”
Mark W. Grinstaff
Boston University, Department of Pharmacology, Social Hour, Boston, MA, 2005 (invited lecture).
144. “Dendritic Macromolecules as Ophthalmic Adhesives.”
Mark W. Grinstaff
Fourth International Dendrimer Symposium, Mount Pleasant, MI, 2005 (invited lecture).
145. “Biodendrimer Adhesives for Ophthalmic Surgeries.”
Mark W. Grinstaff
8th UNESCO School and IUPAC Conference on Macromolecules: Polymers for Africa, Mauritius, 2005 (invited lecture).
146. “Dendritic Adhesives for Tissue Repair.”
Mark W. Grinstaff
Gordon Conference: Biomaterials: Biocompatibility/Tissue Engineering, Plymouth, NH, 2005 (invited lecture).
147. “Guiding Biology on Synthetic Surfaces using Interfacial Biomaterials.”
Mark W. Grinstaff
Gordon Conference: Chemical Sensors and Interfacial Design, Queens College, Oxford, UK, 2005 (invited lecture).
148. “Biodendrimers for Medical Applications.”
Mark W. Grinstaff
University of Eindhoven, Eindhoven, NL, 2005 (invited lecture).
149. “Dendritic Polymers as Ophthalmic Adhesives.”
Mark W. Grinstaff
Glaucoma Foundation Think Tank Meeting, New York, NY, 2005 (invited lecture).
150. “New Adhesives for Ocular Wound Repair.”
Mark W. Grinstaff
SPE: Joining of Medical Plastics Conference: Welding, Bonding, and Failure Prevention, Providence, RI, 2005 (invited lecture).
151. “Charge-Reversal Amphiphiles for Gene Delivery.”
Mark W. Grinstaff
MEDi 2005 Conference, Hartford, CT, 2005 (invited lecture).

152. “Dendritic Polymers as Ophthalmic Sealants.”
Mark W. Grinstaff
MEDi 2005 Conference, Hartford, CT, **2005** (invited lecture).
153. “Guiding Biology on Synthetic Surfaces using Interfacial Biomaterials.”
Mark W. Grinstaff
AVS 52nd International Symposium, Boston, MA, **2005** (invited lecture).
154. “Dendritic Polymers as Ophthalmic Sealants.”
Mark W. Grinstaff
The Schepens Eye Research Institute, Harvard Medical School, Boston, MA, **2005** (invited lecture).
155. “Dendritic Polymers for Medical Applications.”
Mark W. Grinstaff
MIT: Program in Polymer Science and Technology, Boston, MA, **2005** (invited lecture).
156. “Dendritic Polymers as Ophthalmic Sealants.”
Mark W. Grinstaff
Medical Applications of Nanotechnology, Center for Vision Research, University of Florida, Gainesville, FL, **2005** (invited lecture).
157. “Dendritic Polymers for Medical Applications.”
Mark W. Grinstaff
CIBAvision, Atlanta, GA, **2006** (invited lecture).
158. “Non-Viral Charge-Reversal Vectors for DNA Delivery.”
Mark W. Grinstaff
IEEE 2006 Conference, Symposium on Novel Carriers for Drug and Gene Delivery, ABS# 1371, New York, NY, **2006** (invited lecture).
159. “Dendritic Polymers and Hydrogels for Medical Applications.”
Mark W. Grinstaff
American Academy of Nanomedicine, Second Annual Meeting, National Academy Sciences, ABS# 110, Washington, DC, **2006** (invited lecture).
160. “New Functional Transfection Reagents for Gene Delivery.”
Recent Advances in Supramolecular Assemblies with Nucleic Acids
Bordeaux, France, **2006** (invited lecture).
161. “Biodendrimers: New Polymers for Medical Applications.”
Mark W. Grinstaff
Emerging Technology and Best Practices Seminar Series: Biomaterials for Sensors, Implants and Regenerative Medicine, Boston University, Boston, MA, **2006** (invited lecture).

162. "IFBMs: A Toolkit for Manipulating Material-Biological Interactions."
Mark W. Grinstaff
2006 International Electrochemical Society Meeting, Symposium on Functionalization: Novel Platforms, Cancun, Mexico, **2006** (invited lecture).
163. "Interfacial Biomaterials for Controlling Biology on Metals."
Mark W. Grinstaff
8th New Jersey Symposium on Biomaterials Science, New Brunswick, NJ, **2006** (invited lecture).
164. "Biodendrimers for Medical Applications."
Mark W. Grinstaff
Wellesley College, Wellesley, MA, **2006** (invited lecture).
165. "Biodendrimers for Corneal Wound Healing."
Mark W. Grinstaff
Pew Scholars Meeting, Cancun, Mexico, **2007** (invited lecture).
166. "Biodendrimers for Medical Applications."
Mark W. Grinstaff
Northeastern University, Boston, MA, **2007** (IGERT distinguished lecture).
167. "Biodendrimer Encapsulated Camptothecins."
Mark W. Grinstaff
13th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, **2007** (invited lecture).
168. "Interfacial Biomaterials for Controlling the Biological-Material Interface."
Department of Chemistry, University of Utah, Salt Lake City, UT, **2007** (invited lecture).
169. "Biodendrimers for Medical Applications: Encapsulated Camptothecins."
Mark W. Grinstaff
UCLA Nanomedicine Chemical Biology Symposium, Los Angeles, CA, **2007** (invited lecture).
170. "Dendrimer Adhesives for Corneal Wound Repair."
Mark W. Grinstaff
The Association for Research in Vision and Ophthalmology Annual Meeting: Nanotechnology Symposium, Fort Lauderdale, FL, **2007** (invited lecture).
171. "Biodendrimers for Wound Repair and Tissue Engineering."
Mark W. Grinstaff
IUMACRO 07, Macromolecules for a Safe, Sustainable, and Healthy World, Brooklyn, NY, **2007** (invited lecture).
172. "Biodendrimers for Corneal Wound Repair."
Mark W. Grinstaff
Université Victor Segalen Bordeaux 2, INSERM, Bordeaux, France, **2007** (invited lecture).

173. “Biodendrimers for Medical Applications: Corneal Wound Repair and Drug Delivery.”
Mark W. Grinstaff
Department of Biomedical Engineering & Chemistry, Carnegie Mellon University, Pittsburgh, PA, 2007 (invited lecture).
174. “Dendrimers for the Repair of Ophthalmic Wounds and More.”
Mark W. Grinstaff
Fifth International Dendrimer Symposium, Toulouse, France, 2007 (invited lecture).
175. “Biodendrimers for Ocular Wound Repair.”
Mark W. Grinstaff
Department of Biochemistry, Brandeis University, Waltham, MA, 2007 (invited by the graduate students for a lecture).
176. “Biodendrimers for Medical Applications.”
Mark W. Grinstaff
Department of Biomedical Engineering, Purdue University, West Lafayette, IN, 2008 (invited lecture; Distinguished Lecture Series).
177. “Biodendrimers for Medical Applications.”
Mark W. Grinstaff
Centre Interdisciplinaire des Nanomatériaux de Marseille, University Marseille de Luminy, Marseille, France, 2008 (invited lecture; Distinguished Professor).
178. “Biodendrimers for Ocular Wound Repair.”
Mark W. Grinstaff
CNRS, University Marseille de Luminy, Marseille, France, 2008 (invited lecture).
179. “Biodendrimers for Drug Delivery.”
Mark W. Grinstaff
Boston University Emerging Technology Seminar Series – Nanotechnology in Medicine, Boston, MA, 2008 (invited lecture).
180. “Biodendrimers for Corneal Wound Repair.”
Mark W. Grinstaff
Boston University Medical School, Vision Research Working Group Seminar Series, Boston, MA, 2008 (invited lecture).
181. “Nanoscale Dendritic Polymers for Ocular Wound Repair.” *The Association for Research in Vision and Ophthalmology Annual Meeting: Nanomedicine Applications in Ophthalmology, Fort Lauderdale, FL, 2008* (invited lecture).
182. “Nanoscale Dendritic Polymers for Medical Applications.” *The Association for Research in Vision and Ophthalmology Annual Meeting: Nanotechnology Group Workshop, Fort Lauderdale, FL, 2008* (invited lecture).

183. "Local Delivery of Chemotherapy for Prevention of Tumor Recurrence."
Mark W. Grinstaff
Massachusetts Life Sciences Innovation Day, Boston, MA, **2008** (invited talk).
184. "Preparation and Evaluation of Functional Nanospheres."
Mark W. Grinstaff
PRL: Biomaterials and Nanomedicine, Frederick, MD, **2008** (invited talk).
185. "An Update on PGLSA Dendrimers and a New Story on Expansile Nanoparticles."
Mark W. Grinstaff
Gordon Conference: Drug Delivery in Medicine and Biology, Big Sky, MT, **2008** (invited lecture).
186. "Synthesis and Characterization of Supramolecular Ionic Networks."
Mark W. Grinstaff
102nd Korean Chemical Society Meeting; Symposium on Ionic Liquids, Jeju Island, Korea, **2008** (invited lecture).
187. "New Development in Localized Chemotherapy Drug Delivery Using Nanospheres and Polymer Films"
Mark W. Grinstaff
CIMIT Innovation Congress 2008, Boston, MA, **2008** (invited lunch lecture).
188. "Biodendrimers for Ocular Wound Repair: From Concept to Clinical Use."
Mark W. Grinstaff
Ophthalmic Laser Surgical Society Meeting, New York City, NY, **2009** (invited dinner lecture).
189. "Paclitaxel Loaded Expansile Nanoparticles for Cancer Treatment."
Mark W. Grinstaff
CIMIT Forum, Beth Isreal Deaconess Medical Center, Boston, MA, **2009** (invited lecture).
190. "Biomaterials and Polymers: From Bench to Bedside."
Mark W. Grinstaff
BU Deans Advisory Meeting, Boston, MA, **2009** (invited lecture).
191. "Photocrosslinkable Dendrimers for the Repair of Osteochondral Defects and New Imaging Methods to Determine Success."
Mark W. Grinstaff
Sixth International Dendrimer Symposium, Stockholm, Sweden, **2009** (invited lecture).
192. "Dendritic Polymers as Ophthalmic Adhesives: From Concept to Clinical Use."
Mark W. Grinstaff
Network of Excellence for Functional Biomaterials, Galway, Ireland, **2009** (keynote lecture).

193. “Commercializing the Research Idea: Dendritic Polymers for the Repair of Ophthalmic Wounds.”
Mark W. Grinstaff
BUWIC Special Summer Symposium: From Research Idea to Biotech Startup, Boston, MA, **2009** (invited lecture).
194. “Dendritic Polymers for Ocular Wound Repair: From Concept to Clinical Use to Products (The HyperBranch Medical Technology Story).”
Mark W. Grinstaff
Biomaterials, Entrepreneurship, Innovations, Translation (BEIT 2009), Sponsored by the University of Washington Engineered Biomaterials, Seattle, WA, **2009** (invited lecture).
195. “Downhole Li-ion Batteries Based on Network Ionic Liquids for Powering Micro and Nanosensors.”
Mark W. Grinstaff
Advanced Energy Consortium Meeting, Austin, TX, **2009** (invited lecture).
196. “Dendritic Polymers for Ocular Wound Repair: From Concept to Clinical Use.”
Mark W. Grinstaff
Boston University Chemistry 195 Seminar, Boston, MA, **2009** (invited lecture).
197. “Dendritic Polymers for Ocular Wound Repair and the Treatment of Cancer: From Concept to Clinical Use.”
Mark W. Grinstaff
University of Connecticut, Institute of Materials Science, Storrs, CT, **2009** (invited lecture).
198. “The Past, Present, and Future of OcuSeal™.”
Mark W. Grinstaff
BD Medical – Ophthalmic Systems, Waltham, MA, **2009** (invited lecture).
199. “Development of an Ocular Sealant: The HyperBranch Medical Technology Story.”
Mark W. Grinstaff
Boston University First Annual Translational Research Symposium, Boston, MA, **2010** (invited lecture).
200. “Expansile Nanoparticles: Synthesis, Characterization, and In vivo Efficacy.”
Mark W. Grinstaff
Biomaterials Annual Meeting, Seattle, WA, USA, **2010** (invited lecture).
201. “Expansile Nanoparticles: Synthesis, Characterization, and In vivo Efficacy of an Acid-Responsive Polymeric Drug Delivery System.”
Mark W. Grinstaff
Particles 2010 Meeting, Orlando, FL, USA, **2010** (invited lecture).
202. “Downhole Li-ion Batteries Based on Network Ionic Liquids for Powering Micro and Nanosensors.”
Mark W. Grinstaff
Advanced Energy Consortium Meeting, Boston, MA, **2010** (invited lecture).

203. "Peptide-based Surface Coatings for the Inhibition of Pathogenic Biofilms on Titanium."
Xiaojuan Khoo, George O'Toole, Daniel Kenan, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Nanomaterials for Biological, Pharmaceutical and Biomedical Applications, Boston, MA, USA, **2010**, COLL#368.
204. "Supramolecular Ionic Networks."
Mark Grinstaff
240th American Chemical Society National Meeting, From Molecules to Macromolecules: Towards Self-Assembling Materials, Boston, MA, USA, **2010**, POLY#5.
205. "Dendritic polymers for Ocular Wound Repair: From Concept to Clinical Use – The HyperBranch Medical Technology Story."
Mark Grinstaff
240th American Chemical Society National Meeting, Medical Applications of Polymers, Boston, MA, USA, **2010**, POLY#18 (invited lecture).
206. "Expansile Nanoparticles: Synthesis, Characterization, and In vivo Efficacy in Lung and Mesothelioma Tumor Models."
Mark W. Grinstaff
240th American Chemical Society National Meeting, Multifunctional Nanoparticles for Drug Delivery and Imaging, Boston, MA, USA, **2010**, PMSE#60 (invited lecture).
207. "Charge-Reversible Amphiphiles for Gene Delivery."
Mark W. Grinstaff
7th Lipidomics Congress, Lipids in all States, Anglet Biarritz, France, **2010** (invited lecture).
208. "Supramolecular Ionic Networks."
Mark W. Grinstaff
SupraBio: Recent Advances on Supramolecular Systems Involving Biological Molecules and/or Bioinspired Compounds, Centre de Recherches Paul Pascal, Pessac, France, **2010** (invited lecture).
209. "Synthesis and Physical Properties of Supramolecular Ionic Networks."
Mark W. Grinstaff
CNRS Bordeaux, CRPP, Pessac, France, **2010** (invited lecture).
210. "Dendritic Polymers for Ocular Wound Repair: From Concept to Clinical Use."
Mark W. Grinstaff
SE/SW Joint ACS Regional Meeting, Studies of Diverse Polymer Architecture: Dendrimers, Cyclic Polymers and Other Complex Macromolecular Structures, New Orleans, LA, **2010** (invited lecture).
211. "Downhole Li-ion Batteries Based on Network Ionic Liquids for Powering Micro and Nanosensors: Year 1.5 Report."
Mark W. Grinstaff
Advanced Energy Consortium Meeting, Austin, TX, **2010** (invited lecture).

212. “Films and Nanoparticles for the Prevention of Tumor Recurrence.”
Mark W. Grinstaff
Macromolecular Materials Gordon Conference, Venture, CA, USA, **2011** (invited lecture).
213. “Chondroprotection Using a Novel Synthetic Viscosupplement in a Rat OA Model.”
Michel Wathier, Prashant N. Bansal, Vahid Entezari, Ann Bendele, Brian D. Snyder; Mark W. Grinstaff, and Hideki Suzuki
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#0043).
214. “Electrostatic Attraction between Charged Contrast Agents and Glycosaminoglycans Improves CT Imaging of Articular Cartilage.”
Rachel C. Stewart, Prashant N. Bansal, Brian D. Snyder, and Mark W. Grinstaff
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#0063).
214. “Binding Affinities of an Anionic and a Cationic CT Contrast Agent in Articular Cartilage.”
Rachel C. Stewart, Prashant N. Bansal, Brian D. Snyder, and Mark W. Grinstaff
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#0216).
215. “Polymeric Films and Nanoparticles for the Prevention of Tumor Recurrence.”
Mark W. Grinstaff
Department of Biomedical Engineering, Carnegie Mellon University, Pittsburgh, PA, **2011** (invited lecture).

Oral Communications by Undergraduate Students, Graduate Students, Postdoctoral Fellows, Visiting/Adjunct Assistant Professors, & Collaborating MDs & PhDs:

1. “Second-Order Nonlinear Optical Structure-Property Relationships of Platinum Chromophores.” Mark T. Tierney, Karl Base, Alan Fort, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #233.
2. “Automated Solid-Phase Synthesis of Ruthenium-Oligonucleotides.”
Sheob I. Khan, Amy E. Beilstein, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #257.
3. “Synthesis and Characterization of a Ruthenium-Labeled Amino-Nucleoside.”
Xi Hu, Shoeb I. Khan, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #258.
4. “Synthesis and Characterization of a Ferrocene-Labeled Nucleoside.”
Amy Beilstein and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #252.
5. “Synthesis of Photocrosslinkable Biopolymers for Cell Encapsulation.”
Kimberly A. Smeds, Anne Pfister-Serres, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #611.
6. “Viability and Function of Encapsulated Islet Cells in a Polysaccharide Hydrogel Microcapsule.” Anne Pfister-Serres, Kimberly A. Smeds, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS #612.
7. “Synthesis and Characterization of Highly Conjugated Electron-Withdrawing Substituted Phenanthrolines.”
Jerry W. Inman, Jr., Mark T. Tierney, Bobbi L. Ruben, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS, Undergraduate Symposium, #58.
8. “Step-Scan Time-Resolved FTIR Studies of Excited-State Electronic Structure in Various d6 Transition Metal Complexes.”
Gregory D. Smith, Shoeb I. Khan, Amy E. Beilstein, Mark W. Grinstaff, and Richard A. Palmer
NC-ACS Local Section of the American Chemical Society, Research Triangle Park, NC, **1999**.
9. “Synthesis and Properties of Ferrocene-Labeled Oligodeoxynucleotides.”
Amy Beilstein and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #529.

10. "Photocrosslinkable Hyaluronic Acid for Cell Encapsulation."
Kimberly A. Smeds, Daniel R. Burnett, Anne Pfister-Serres, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
1st Joint BMES/EMBS Meeting, Atlanta, GA, **1999**. BMES/EMBS ABS #724.
11. "Carbohydrosomes: Synthesis of a Novel Carbohydrate Based Phospholipids."
Geoffrey S. Hird and Mark W. Grinstaff
International Symposium on Surfactants in Solution, Gainesville, FL, **2000**. SIS ABS #117.
12. "Fluorenone, Anthraquinone, and Phenothiazine Labeled Oligodeoxynucleotides: Redox Probes for DNA-Mediated Charge-Transfer Studies."
Mark T. Tierney and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-ABS-ORG #020.
13. "Synthesis and Characterization of Carbohydrosomes: Novel Supramolecular Structures."
Geoffrey S. Hird and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-ABS-COLL #068.
14. "Synthesis of Novel Polysaccharide Mimics."
Mathew J. Sheehy, Elisabeth B. Walsh, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #LL6.8.
15. "Physical Properties of Novel Carbohydrate Based Phospholipid Bilayers."
Geoffrey S. Hird, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
221st American Chemical Society, San Diego, CA, **2001**. ACS-ABS-COLL #057.
16. "Step-Scan Time-Resolved FTIR Study of Cu Complexes with 2,9 Substituted Phenathralinone Ligands."
Yu Lu, M. Shane Hutson, Mark W. Grinstaff, and Richard A. Palmer
NC-ACS Local Section of American Chemical Society, Regional Meeting, Research Triangle Park, NC, **2001**.
17. "Synthesis and Application of Polyether-ester Biodendrimers from Glycerol and Lactic Acid."
Michael A. Carnahan and Mark W. Grinstaff
Richard D. Gilbert Symposium, Raleigh, NC, **2001**.
18. "Nonlinear Finite Element Modeling of the Cell Micromechanical Environment in Hydrogel for Intervertebral Disc Repair."
Anthony E. Baer, Mark W. Grinstaff, Kimberly A. Smeds, Lawrence M. Boyd, and Lori A. Setton
Summer Bioengineering Conference, American Society of Mechanical Engineers, **2001**.
19. "Synthesis and Characterization of Phenothiazine-Labeled Oligodeoxynucleotides for DNA-Mediated Electron-Transfer Studies."
Xi Hu and Mark W. Grinstaff
222nd American Chemical Society, Chicago, IL, **2001**. ACS-ABS-ORG #641.

20. “Novel Biodendrimers for Sutureless Corneal Surgery”
Terry Kim
Scheie Eye Institute of the University of Pennsylvania, PA, 2001.
21. “Interfacial Biomaterials via Phage Display Technology.”
Elisabeth B. Walsh, Daniel J. Kenan, and Mark W. Grinstaff
Materials Research Society, Boston, MA, 2001. Symposium: Polymeric Biomaterials for Tissue Engineering. ABS #GG1.7
22. “Synthesis, Characterization, and Applications of Poly(ether-ester) and Polyester Biodendrimers.”
Michael A. Carnahan and Mark W. Grinstaff
Materials Research Society, Boston, MA, 2001. Symposium: Polymeric Biomaterials for Tissue Engineering. ABS #GG2.3
23. “Synthesis and Characterization of Dendrimers from Alpha-hydroxy and Amino Acids.”
Meredith T. Morgan and Mark W. Grinstaff
Materials Research Society, Boston, MA, 2001. Symposium: Polymeric Biomaterials for Tissue Engineering. ABS #GG4.9
24. “Designing Interfacial Biomaterials using Phage Display Technology.”
Elisabeth B. Walsh
BME 399, CBE Seminar Series, Duke University, Durham, NC, 2002.
25. “Carbohydrosomes.”
Stephen J. Lee, Geoffrey S. Hird, and Mark W. Grinstaff
Self Assembly of the Future, Massa Marittima, Italy, 2002.
26. “Interfacial Biomaterials Coatings for Polystyrene.”
Crystan Middleton, Elisabeth B. Walsh, Daniel J. Kenan, and Mark W. Grinstaff
28th Biomaterials Annual Meeting, Tampa, FL, 2002, ABS# 213.
27. “Novel Biodendrimer Adhesives for Sutureless Corneal Surgery.”
Terry Kim and Mark W. Grinstaff
Research to Prevent Blindness 15th National Science Writers Seminar Paper, Washington, DC, 2002.
28. “Preparation of Polymeric Nanostructures using Electrochemical Dip-Pen Nanolithography.”
Shaun F. Filocamo, Benjamin W. Maynor, Jie Liu, and Mark W. Grinstaff
225th American Chemical Society, New Orleans, LA, 2003. ACS-ABS-PMSE #357.
29. “Self-Gelling Polymers for Repair of Corneal Lacerations.”
Michel Wathier and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Biomaterials for In Situ Tissue Engineering Symposium, Reno, NV, 2003. ABS# 55.

30. "Identification of Specific Binding Peptides for Stainless Steel Using Combinatorial Phage Display."
James A. Parise, Jr., Daniel J. Kenan, and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Biomaterial Surfaces and Interfaces Symposium I, Reno, NV, **2003**. ABS# 84.
31. "NMR Characterization of the Nanoenvironment of Dendrimers."
Meredith T. Morgan, Michael A. Carnahan, Chad E. Immoos, Anthony R. Ribeiro, Stephen J. Lee, and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Nanostructured Biomaterials Symposium, Reno, NV, **2003**. ABS# 196.
32. "Rational Design of Biomaterials for Cartilage Tissue Repair."
Lori A. Setton, Dana L. Nettles, T. Parker Vail, Meredith Morgan, Michael A. Carnahan, and Mark W. Grinstaff.
Gordon Conference, Biomaterials: Biocompatibility and Tissue Engineering, Plymouth, NH, **2003**.
33. "LASIK Flap Suturing for Recurrent Epithelial Ingrowth."
Terry Kim, Mark W. Grinstaff, Michael A. Carnahan, Andrew Velazquez, and Paul Kang
American Academy of Ophthalmology, Anaheim, CA, **2003**.
34. "Three Structurally Distinct Biodendrimers for Use as Drug Delivery Vehicles."
Meredith T. Morgan, Michael A. Carnahan, Chad E. Immoos, Stella Finkelstein, Anthony R. Ribeiro, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2003**. ABS# I6.4.
35. "Photocrosslinkable Biodendrimer Scaffold Supports Cartilage Matrix Synthesis In Vitro."
Serge Söntjens, Dana L. Nettles, Michael A. Carnahan, Lori A. Setton and Mark W. Grinstaff.
International Tissue Engineering Meeting, Orlando, FL, **2003**. ABS# 21.4
36. "Amphiphiles Featuring an Information for Supramolecular Assemblies."
Louis Moreau, Philippe Barthélémy, Mohamed El Maataoui, and Mark W. Grinstaff
IIèmes Journées Franco-Italiennes de la Chimie, Genova, Italia, **2004**.
37. "Charge-Reversal Amphiphiles for Gene Delivery."
Carla A. H. Prata, Yuxing Zhao, Philippe Barthélémy, Yougen Li, Dan Luo, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
227th American Chemical Society, Anaheim, CA, **2004**. ACS-ABS-BIOT #147.
38. "Supramolecular Assemblies of Nucleoside-based Amphiphiles."
Philippe Barthélémy
DNA Supramolecular Assemblies Workshop, Avignon, France **2004** (invited lecture).
39. "Charge-Reversal Amphiphiles for Gene Delivery."
Carla A. H. Prata, Yuxing Zhao, Philippe Barthélémy, Yougen Li, Dan Luo, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
Fiber Society Annual Meeting, Cornell, NY, **2004**.

40. “Amphiphilic Surface Block Biodendrimers.”
Nathanael R. Luman and M.W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #34.
41. “Branched DNA and Charge-Reversal Amphiphiles for Gene Delivery.”
 Yougen Li, Soongho Um, Yen Cu, Dan Luo, Carla A. H. Prata, Yuxing Zhao, Philippe Barthélémy, Thomas J. McIntosh, Stephen J. Lee, and Mark W. Grinstaff
British Pharmaceutical Conference, Manchester, England, **2004**.
42. “Supramolecular Assemblies of Nucleoside-Based Amphiphiles.”
Philippe Barthélémy, Louis Moreau, Jérôme Arigon, Nathalie Campins, Pauline Chabaud, Michel Camplo, and Mark W. Grinstaff
ARO Workshop on Surfactants and Supramolecular Assemblies, Jackson Hole, WY, **2004**.
43. “Electrochemical Dip-Pen Nanolithography to Form Lines and Junctions with Aniline, Thiophene and Pyrrole.”
Shaun F. Filocamo, Benjamin W. Maynor, Chad Immoos, Jie Liu, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2004**. *Symposium: Scanning Probe and Direct Write Lithography*. ABS #C7.6.
44. “Charge-Reversible Lipids for DNA Delivery.”
Carla A. H. Prata, Yuxing Zhao, Philippe Barthélémy, Yougen Li, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
30th Biomaterials Annual Meeting, Memphis, USA, **2005**. ABS# 73.
45. “Hydrogels as Ophthalmic Tissue Adhesives.”
Michel Wathier, Mark W. Grinstaff, Terry Kim, Pil J. Jung, Michael A. Carnahan
30th Biomaterials Annual Meeting, Memphis, USA, **2005**. ABS# 321.
46. “Dendritic Amphiphiles Comprised of Succinic Acid and Glycerol, and Myristic Acid.”
Nathanael R. Luman and M.W. Grinstaff
229th American Chemical Society, Surfactant Self-Assembly: Functionalizing Surfactants, San Diego, CA, **2005**. ACS-ABS-COLL #46.
47. “New Ideas in Thoracic Surgery: Microspheres and Quantum Dots, Basic Science Lecture.”
Yolonda L. Colson
Department of Surgery, University of Utah, Salt Lake City, UT, **2005**.
48. “Future Nanotechnology in Lung Cancer Therapy.”
Yolonda L. Colson
General Thoracic Surgery Visiting Professor, Vanderbilt University Medical Center, Nashville, TN, **2006**.
49. “Future Nanotechnology in Lung Cancer Therapy.”
Yolonda L. Colson
Grand Rounds, Brigham and Women’s Hospital, Boston, MA, **2006**.

50. “Local Incorporation of Anti-neoplastic Agents into Surgical Resection Margins Using a Minimally Invasive Delivery System.”
Yolonda L. Colson
TATRC Product Line Review, Frederick, MD, **2006**.
51. “Chemotherapy Bonded Polymers in Mesothelioma: A New Model.”
Yolonda L. Colson
International Mesothelioma Program, Boston, MA, **2007**.
52. “Novel Pemetrexed-Eluting Microspheres Inhibit Local Growth of Mesothelioma Tumor Cells.”
Sarah Lucier, Jesse B. Wolinsky, Joe Walpole, Mark W. Grinstaff, and Yolonda L. Colson
Academic Surgical Congress, Phoenix, AZ, **2007**.
53. “CIMIT Case Study.”
Yolonda L. Colson
Center for Integration of Medicine and Innovative Technology: New Investigators Orientation, Massachusetts General Hospital, Boston, MA, **2007**.
54. “Use of Drug-eluting Biodegradable Polymers to Prevent Tumor Growth & Recurrence.”
Yolonda L. Colson
Center for Integration of Medicine and Innovative Technology, Boston, MA, **2007**.
55. “Polymers and Nanotechnology: Locoregional Approaches to Improve Lung Cancer Survival.”
Yolonda L. Colson
Visiting Professor Research Seminar, Brigham & Women’s Hospital, Boston, MA, **2007**.
56. “Improvement of Hydrogel Stability by O,N Acyl Rearrangement: A New Approach for Securing Ocular Wounds.”
Michel Wathier, Jason Berlin, and Mark W. Grinstaff.
32nd Biomaterials Annual Meeting, Chicago, IL, **2007**. #122
57. “Characterization of Poly(2-hydroxyethyl methacrylate) Hydrogels for Corneal Grafts.”
Abigail M. Oelker and Mark W. Grinstaff
32nd Biomaterials Annual Meeting, Chicago, IL, **2007**. #125.
58. “Multifunctional Titanium-binding Peptides for Rapid Modification of Implant Surfaces.”
Xiaojuan Khoo, Daniel J. Kenan, and Mark W. Grinstaff
234th American Chemical Society, Emerging Technologies: Nanobiotechnology Session, Boston, MA, **2007**, ACS-ABS-BIOT #67.
59. “Amphiphiles Possessing Novel Peptide Binding Sites as Non-viral Gene Delivery Agents.”
Xiaoxiang Zhang, Carla A. H. Prata, and Mark W. Grinstaff
234th American Chemical Society, Nanomaterials and Biological Applications: Diagnostic, Imaging, Biosensing and Drug Delivery Session, Boston, MA, **2007**, ACS-ABS-COLL #145.

60. "Interfacial Peptides for the Cellularization of Titanium Metal."
Steven R. Meyers, Xiaojuan Khoo, Daniel J. Kenan, and Mark W. Grinstaff
234th American Chemical Society, New Concepts in Polymeric Materials Session, Boston, MA, **2007**, ACS-ABS-PMSE #13.
61. "Polymers and Nanotechnology: New Modalities for Targeted Drug Delivery."
Yolonda L. Colson
Tech-Con Annual Meeting, Society of Thoracic Surgeons/American Association for Thoracic Surgery, Fort Lauderdale, FL, **2008**
62. "Prevention of Locoregional Growth of Mesothelioma with Drug-Eluting Dynamic Nanoparticles."
 Yolonda L. Colson, Emily Southard, Aaron P. Griset, Ann Gaffey, Rong Liu, and Mark W. Grinstaff
Academic Surgical Congress, Huntington Beach, CA, **2008**.
63. "Localized Drug Delivery Through the Use of Chemotherapy-Loaded Polymer Films."
Yolonda L. Colson, Mark W. Grinstaff, Rong Liu, Patel R, Emily Southard, Taylor K, Joe Walpole, and Josha Winer
Academic Surgical Congress, Huntington Beach, CA, **2008**.
64. "Paclitaxel-Loaded Polymer Film Prevents Local Recurrence of Non-Small Cell Lung Cancer."
Rong Liu, Jesse Wolinsky, Mark W. Grinstaff, and Yolonda L. Colson
88th Annual Meeting of the American Association for Thoracic Surgery, San Diego, CA, **2008**.
65. "Quantitative CT Arthrography Predicts Glycosaminoglycan Content and Biomechanical Properties of Articular Cartilage."
 Prashant N. Bansal, Neel Joshi, Vahid Entezari, Mark W. Grinstaff, and Brian D. Snyder
Annual Meeting of the Pediatric Orthopaedic Society of North America, Albuquerque, NM, **2008** (Invited talk).
66. "Dendrimers for Repairing Cataract Incisions."
Michel Wathier and Mark W. Grinstaff
2008 World Biomaterials Congress, Session: Functionalization of Dendrimeric Biomaterials, Amsterdam, Netherlands, **2008** (Invited talk). #1924
67. "Synthesis of First Nucleo-Amphiphiles Derived from Universal Bases"
Claire Ceballos, Dominique Payet, Suzanne Giorgio, Mark W. Grinstaff, and Michel Camplo
5e Rencontre de Chimie Organique de Marseille (RCOM5) "Synthèse et chimie pour le vivant", Marseille, France, **2008**.
68. "Regional Drug Delivery Via Nanoparticle Lymphatic Migration: Proof of Concept Using Dual Fluorescent Localization."
Joshua Winer, Aaron Griset, John V. Frangioni, Mark W. Grinstaff, Yolonda L. Colson
Mannick Day Award Presentation, Brigham and Women's Hospital, Boston, MA, **2008**.

69. “Novel Drug-Eluting Expansile Nanoparticles Prevent Locoregional Growth of Mesothelioma and Markedly Improve Survival.”
Emily B. Southard, Rong Liu, Aaron Griset, Mark W. Grinstaff, and Yolonda L. Colson
4th Annual Academic Surgical Congress, Ft. Myers, FL, **2009**.
70. “Multifunctional Peptide-based Coatings for the Facile Modification of Device Interfaces.”
Xiaojuan Khoo, Steven R. Meyers, George O’Toole Jr., Daniel J. Kenan, and Mark W. Grinstaff
GML Symposium on Interdisciplinary Graduate Research, Northeastern University, Boston, MA, **2009**.
71. “GNL for Preparation of Tissue Scaffolds.”
Philip DeShield and Mark W. Grinstaff
Boston University SURF Program Symposium, Boston, MA, **2009**.
72. “Reversible Disulfide Crosslinked ROMP-Based Hydrogel for Injectable Biomedical Applications.”
Stephanie S. Stoddart, Michel Wathier, and Mark W. Grinstaff
XVIII International Materials Research Congress 2009, Cancun, Mexico, **2009** (S9-07).
73. “Nanoparticle-Based Drug Delivery of Chemotherapy via Lymphatic Migration in a Large Animal Model.”
Onkar Khullar, Josh Winer J, Aaron P. Griset, S. Gibbs-Strauss, Morgan Schulz, John V. Frangioni, Mark W. Grinstaff, and Yolonda L. Colson.
American College of Surgeons Clinical Congress, Chicago, IL. October 14, **2009**
74. “Paclitaxel-Eluting Polymer Film Reduces Locoregional Recurrence in Mouse Model of Sarcoma: A Novel Investigational Therapy.”
Rong Liu, Jacqueline E. Wade, Jesse B. Wolinsky, Josh H. Winer, P.J. Catalano, A.J. Wagner, Mark W. Grinstaff, Yolonda L. Colson, and Chandrajit P. Raut.
Society of Thoracic Surgeons. **2010**.
75. “Paclitaxel-Eluting pH-Responsive Expansile Nanoparticles: In Vitro Activity in Ovarian Cancer.”
Morgan Schulz, Aaron P. Griset, Mark W. Grinstaff, Yolonda L. Colson.
Academic Surgical Congress. San Antonio, TX. February 3, **2010**.
76. “Size- and Polymer-Dependent Intranodal Localization of Methacrylate Nanoparticles.”
Onkar Khullar, Kimberely A. Zubris, Aaron P. Griset, John V. Frangioni, Mark W. Grinstaff, Yolonda L. Colson.
American Association for Thoracic Surgery. **2010**.
77. “Paclitaxel-Eluting Polymer Film Reduces Locoregional Recurrence in Mouse Model of Sarcoma: A Novel Investigational Therapy.”
Rong Liu, Jacqueline E. Wade, Jesse B. Wolinsky, P.J. Catalano, A.J. Wagner, Mark W. Grinstaff, Yolonda L. Colson, and Chandrajit P. Raut.
The Society of Surgical Oncology’s (SSO) 63rd Annual Cancer Symposium. St. Louis, Missouri. March 6, **2010**

78. “Lipopeptides Possessing Tripeptide, not Dipeptide, Head Groups Show Efficient DNA and siRNA Delivery.”
Xiao-Xiang Zhang and Mark W. Grinstaff
Biomaterials Annual Meeting, Seattle, WA, USA, **2010**.
79. “Utilization of Bacteria Proteins to Manipulate Intracellular Transport and Apoptosis.”
Samantha Byrnes and Barrett Steinberg (Horacio Frydman and Mark W. Grinstaff)
BME 5th Annual Senior Design Project Conference, Boston, MA, USA, **2010**.
80. “Contrast Enhanced CT Imaging for Quantification of the Glycosaminoglycans and Biomechanical Properties of Articular Cartilage.”
Brian D. Snyder, Prashant N. Bansal, Neel S. Joshi, Vahid Entezari, and Mark W. Grinstaff
International Cartilage Repair Society Meeting, Boston, MA, USA, **2010**.
81. “Expansile Polymeric Nanoparticles for the Treatment of Breast Cancer.”
Kimberly Ann V. Zubris, Aaron P. Griset, Rong Liu, Yolonda L. Colson, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Material, Devices and Switches, Boston, MA, USA, **2010**, ORGN#500.
82. “Anionic Amphiphilic Dendrimers as Broad Spectrum Antimicrobial Agents.”
Meredith A. Mintzer, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Molecular Recognition and Self-Assembly, Boston, MA, USA, **2010**, ORGN#545.
83. “Light-activated Amphiphiles for Gene Delivery.”
Caroline M. LaManna, Hrvoje Lusic, Jiazuo H. Feng, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Nanomaterials for Biological, Pharmaceutical and Biomedical Applications, Boston, MA, USA, **2010**, COLL#460.

Poster Presentations:

1. Cell and Molecular Biology Training Grant Research Symposium, Urbana, IL, **1990**.
2. Symposium on Reactions in Organized Media, American Chemical Society, San Francisco, CA, **1992**.
3. American Chemical Society, San Francisco, CA, **1992**.
4. AAAS Meeting, Chicago, IL, **1992**.
5. Society for Magnetic Resonance Imaging, San Francisco, CA, **1993**.
- 6-7. American Chemical Society, Denver, CO, **1993**.
- 8-10. American Chemical Society, San Diego, CA, **1994**.
11. International Symposium on Molecular Reaction Mech. Involving Metals, Florence, Italy, **1994**.
- 12-13. American Chemical Society, Anaheim, CA, **1995**.

14. "Generation of an Unprecedented Excited State Oxidant in a Coordinately Unsaturated Platinum Complex."
Karl Base and Mark W. Grinstaff
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #134.
15. "Synthesis, Spectroscopy, and X-Ray Structure of Platinum Dithiolate and Catecholate Complexes."
Mark T. Tierney, Karl Base, and Mark W. Grinstaff
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #135.
16. "Synthesis of Highly-Conjugated Electron-Withdrawing Phenanthrolines."
Mark T. Tierney and Mark W. Grinstaff
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #136.
17. "Nonlinear Optical Properties of Platinum Chromophores."
Mark W. Grinstaff, Marguerite Barzoukas, Alan Fort, Karl Base, and Mark T. Tierney
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #137.
18. "Synthesis of Carbohydrate Metalloprotease Inhibitors as Potential Antibacterial Agents."
Shoeb I. Khan, Geoffrey Hird, Erica Beckham, and Mark W. Grinstaff
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #138.
19. "Platinum Complexes Containing Thiolato-Carborane Moiety: Novel Materials for Nonlinear Optics."
Karl Base, Alan Fort, and Mark W. Grinstaff
215th American Chemical Society, Dallas, TX, **1998**. ACS-ABS-IC #137.
20. "Automated Solid-Phase Synthesis of Metallo-Oligonucleotides."
Mark W. Grinstaff, Amy E. Beilstein, and Shoeb I. Khan
Nanotechnology for the Soldier System Conference, Boston, MA, **1998**.
21. "The Alkylation of Iodouridine by a Heterogeneous Catalyst."
Shoeb I. Khan and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-ORG #448.

22. "The Solid Phase Synthesis of Nucleoside Hydroxamic Acids for Metal Binding."
Shoeb I. Khan and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #427.
23. "Synthesis of Carbohydrate Metalloprotease Inhibitors"
Geoffrey Hird, Matthew Sheehy, Shoeb I. Khan, Erica Beckham, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #428.
24. "Synthesis and Characterization of a Ruthenium-Labeled Amino-Nucleoside."
Xi Hu, Shoeb I. Khan, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #429.
25. "Synthesis of a Novel Cobalt(II) 2'-Deoxyuridine."
Shamsa Sarwar and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #430.
26. "Synthesis and Characterization of a Ferrocene-Labeled Nucleoside Phosphoramidite."
Amy Beilstein and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #431.
27. "Synthesis and Characterization of Tris-Phenanthroline Rhodium(III)-Labeled 2'-Deoxyadenosine."
Shamsa Sarwar, Mark T. Tierney, Shoeb I. Khan, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #432.
28. "Synthesis and Spectroscopy of Platinum(II) Diimine Pyrimidine-1,1-Dithiolates."
Mark T. Tierney, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #433.
29. "Synthesis and Photophysical Properties of a Ruthenium-Modified 2'-Deoxyuridine Phosphoramidite."
Shoeb I. Khan, Amy Beilstein, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #434.
30. "Synthesis of Mono- and Di- Substituted Electron-Withdrawing Phenanthrolines."
Mark T. Tierney, Bobbi L. Ruben, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-IC #435.
31. "Viability and Function of Encapsulated Islet Cells in a Polysaccharide Hydrogel Microcapsule."
Anne Pfister-Serres, Kimberly A. Smeds, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-POLY #214.
32. "Synthesis and Characterization of Photocrosslinkable Polysaccharide Hydrogels."
Kimberly A. Smeds, Anne Pfister-Serres, Diane L. Hatchell, Peter Saloupis, and Mark W. Grinstaff
216th American Chemical Society, Boston, MA, **1998**. ACS-ABS-POLY #215.

33. “Automated Solid-Phase Synthesis of Metallo-Oligonucleotides.”
 Sheob I. Khan, Amy E. Beilstein, Xi Hu, Shamsa Sarwar, and Mark W. Grinstaff
33rd International Conference on Coordination Chemistry, Florence, Italy, **1998**. ABS #256T.
34. “Nonlinear Optical Structure-Property Relationships of Platinum Chromophores.”
 Mark W. Grinstaff, Alain Fort, Karl Base, and Mark T. Tierney.
33rd International Conference on Coordination Chemistry, Florence, Italy, **1998**. ABS #363T.
35. “Synthesis of Mono- and Di- Substituted Electron-Withdrawing Phenanthrolines.”
 Mark T. Tierney, Bobbi L. Ruben, and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS, # 313.
36. “The Solid Phase Synthesis of Nucleoside Hydroxamic Acids for Metal Binding.”
 Shoeb I. Khan and Mark W. Grinstaff
Southeastern Regional Meeting of the American Chemical Society, Research Triangle Park, NC, **1998**. SERMACS-ABS, # 300.
37. “Automated Solid-Phase Synthesis of Oligonucleotides Labeled with Transition Metals.”
 Mark W. Grinstaff, Amy E. Beilstein, Xi Hu, Gregory D. Smith, Milan Sykora, and Shoeb I. Khan
Metals in Biology Gordon Conference, Venture CA, **1999**, ABS #41.
38. “A Photopolymerized Sealant for Corneal Perforations.”
 Daijiro Miki, Anne Pfister-Serres, Kimberly A. Smeds, Kouros A. Dastghieb, Makoto Inoue, Diane L. Hatchell, and Mark W. Grinstaff
The Association for Research in Vision and Ophthalmology Annual Meeting, IOVS 40(4): 1802B710, Fort Lauderdale, FL, **1999**.
39. “Transplanting Corneal Grafts with a Laser Activated Polymer.”
 Brent C. White, C.L. Springs, Bruce C. Roberts, Anne Pfister-Serres, Mark W. Grinstaff, W. Craig Fowler
The Association for Research in Vision and Ophthalmology Annual Meeting, IOVS 40 (4): 3350B208, Fort Lauderdale, FL, **1999**.
40. “Automated Solid-Phase Synthesis and Photophysical Properties of Oligonucleotides Labeled with Metal Diimine Complexes.”
 Mark W. Grinstaff, Amy E. Beilstein, Xi Hu, Mark T. Tierney, Gregory D. Smith, Milan Sykora, and Shoeb I. Khan
International Conference on Bioinorganic Chemistry, Minneapolis, MN, **1999**.
41. “Synthesis and Excited State Properties of Novel Ruthenium Nucleosides and Oligonucleotides.”
 Amy E. Beilstein, Shoeb I. Khan, and Mark W. Grinstaff
International Conference on Photochemistry, Durham, NC, **1999**, PS-146.

42. "Automated Solid-Phase Synthesis and Characterization of Fluorenone and Anthraquinone Labeled Oligonucleotides."
Mark T. Tierney and Mark W. Grinstaff
International Conference on Photochemistry, Durham, NC, **1999**, PS-147.
43. "Synthesis and Excited State Properties of Novel Ruthenium Nucleosides."
Amy E. Beilstein, Shoeb I. Khan, Gregory D. Smith, Milan Sykora, and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #398.
44. "Automated Solid-Phase Synthesis of Oligonucleotides Labeled with Ru(bpy)₃²⁺."
Xi Hu and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #399.
45. "Automated Solid-Phase Synthesis of 5'-Terminal Labeled Metallo-Oligonucleotides."
Shoeb I. Khan and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #400.
46. "Automated Solid-Phase Synthesis and Characterization of a N-(2-oxoethyl)-9-Fluorenone-4-Carboxamide-Modified Oligonucleotide."
Mark T. Tierney and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #401.
47. "Synthesis and Electronic Properties of a Rhodium(III)-Labeled 2'-Deoxyuridine."
Mark T. Tierney and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #402.
48. "On the Second-Order Nonlinear Optical Structure-Property Relationships of Metal Chromophores."
Karl Base, Mark T. Tierney, Alan Fort, and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #474.
49. "Automated Solid-Phase Synthesis of Metallodendrons."
Mark T. Tierney and Mark W. Grinstaff
218th American Chemical Society, New Orleans, LA, **1999**. ACS-ABS-IC #473.
50. "Synthesis of Novel Hydrophilic Polymers."
Matthew J. Sheehy and Mark W. Grinstaff
1st Joint BMES/EMBS Meeting, Atlanta, GA, **1999**. BMES/EMBS page 733.
51. "Incorporation of Probes During Automated Solid-Phase Synthesis Using a Pd(0) Cross Coupling Reaction."
Shoeb I. Khan and Mark W. Grinstaff
International Symposium on Trends in Medicinal Chemistry and Biocatalysis, **2000**, New Delhi, India.

52. "Transplantation of Preadipocytes in Methacrylated Modified Hyaluronic Acid."
Nicole Kramer, Steven A. Brown, Kimberly A. Smeds, Mark W. Grinstaff, Scott L. Levin,
and Bruce Klitzman
Plastic Surgery Council Meeting, Seattle, WA, 2000.
53. "Probing the Electronic-Structure of Platinum(II) Chromophores: Six New Highly Soluble
Bis and Di- Phenolate/Thiolate Pt(II) Diimine Chromophores."
Julia Weinsten, Mark T. Tierney, Karl Base, Anthony A. Ribeiro, and Mark W. Grinstaff
*34th International Conference on Coordination Chemistry, Edinburgh, Scotland, 2000, ICC
34, ABS #0204.*
54. "Carbohydrosomes: Synthesis of a Novel Carbohydrate Based Supramolecular Structure."
Geoffrey S. Hird, Thomas J. McIntosh, and Mark W. Grinstaff
*10th International Conference on Colloid and Interface Science, Bristol, UK, 2000,
ABS BAP 32.*
55. "Step-Scan FTIR Time-Resolved Spectroscopy of a Ruthenium Labeled 2'-Deoxyuridine."
Gregory D. Smith, Yu Lu, Mark W. Grinstaff, and Richard A. Palmer
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-IC #115.
56. "Ferrocene Phosphoramidites for Oligonucleotide Synthesis."
Amy E. Beilstein, and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-IC #127.
57. "Solid-Phase Synthesis and Photophysical Properties of DNA Labeled at the Nucleobase
with a Ruthenium(II) Tris-Diimine Complex."
Shoeb I. Khan, Amy E. Beilstein, Mark T. Tierney, Mylan Sykora, and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-IC #131.
58. "Solid-Phase Synthesis and Photophysical Properties of Ruthenium Dendrimers."
Mark T. Tierney and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-IC #346.
59. "Automated Solid-Phase Synthesis of Linear Metallo-Assemblies."
Shaun S. Filocamo, Mark T. Tierney, and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-IC #348.
60. "Palladium(0) Catalyzed Modification of Oligonucleotide During Automated Solid-Phase
Synthesis."
Shoeb I. Khan and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-ORG #067.
61. "Synthesis and Characterization of Phenothiazine-Labeled Oligodeoxynucleotides for DNA-
Mediated Electron-Transfer Studies."
Xi Hu and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, 2000. ACS-ABS-ORG #390.

62. "Synthesis of Novel Hydrophilic Biopolymers."
 Elisabeth B. Walsh, Mathew J. Sheehy, and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-ABS-POLY #319.
63. "Synthesis of Photocrosslinkable Biopolymers for In Situ Applications."
 Kimberly A. Smeds and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-ABS-POLY #320.
64. "Kinetics of ROMP and Postmodification to Yield Hydrophilic Polymers."
 Emile Thompson, Elisabeth B. Walsh, Mathew J. Sheehy, and Mark W. Grinstaff
220th American Chemical Society, Washington, DC, **2000**. ACS-SEED PROGRAM.
65. "Observation of the Electron-Transfer Product in a Ru(diimine)₃²⁺ and Phenothiazine Labeled DNA Duplex."
 Mark W. Grinstaff
U.S. National Academy of Sciences, Japanese-American Frontiers of Science, Arnold and Mabel Beckman Center, Irvine, CA **2000** (invited poster).
66. "Carbohydrosomes: A New Class of Potential Drug Delivery Vesicles."
 Geoffrey S. Hird, Thomas J. McIntosh, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #NN5.9.
67. "A Novel Cationic Carbohydrate-Based Lipid for Gene Delivery."
 Keeana S. Sajadi, Geoffrey S. Hird, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #NN5.2.
68. "A Polycarbonate of Glycerol."
 William C. Ray and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #NN5.7.
69. "Physical and Mechanical Properties of Photocrosslinked Hyaluronan for Biomedical Applications."
 Kimberly A. Smeds and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #LL5.3.
70. "Biodendrimers for Drug Delivery."
 Michael A. Carnahan and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2000**. ABS #NN5.8.
71. "An Investigation of Phospholipase A₂ Activity Upon a Novel Carbohydrate Based Phospholipid."
 Geoffrey S. Hird and Mark W. Grinstaff
221st American Chemical Society, San Diego, CA, **2001**. ACS-ABS-COLL #229.
72. "Synthesis of Poly(lactic acid) Biodendrimers."
 Michael A. Carnahan and Mark W. Grinstaff
27th Biomaterials Annual Meeting, Saint Paul, MN, **2001**. ABS #556.

73. "A Novel Photopolymerization Fabrication Route to Macroporous Biomaterials."
Meredith T. Morgan and Mark W. Grinstaff
27th Biomaterials Annual Meeting, Saint Paul, MN, **2001**. ABS #444.
74. "Synthesis of a G3 Dendron for Biomedical Applications."
Kimberly A. Smeds and Mark W. Grinstaff
27th Biomaterials Annual Meeting, Saint Paul, MN, **2001**. ABS #557.
75. "Synthesis and Stability of Anthraquinone and Fluorenone, and Phenothiazine Labeled Oligodeoxynucleotides: Redox Probes for DNA-Mediated Charge-Transfer Studies."
Mark T. Tierney and Mark W. Grinstaff
National Organic Symposium, Bozeman, MT, **2001**. ABS #167.
76. "Biodendrimers for Tissue Engineering."
Mark W. Grinstaff
Gordon Conference: Biomaterials: Biocompatibility/Tissue Engineering, Plymouth, NH, **2001**.
77. "Biopolymers for Islet Transplantation."
Mark W. Grinstaff
Whitaker Foundation Meeting, La Jolla, CA, **2001**. ABS #B12
78. "DNA-Mediated Electron Transfer Across a Hydrogen-Bonding Interface."
Mark T. Tierney and Mark W. Grinstaff
222nd American Chemical Society, Chicago, IL, **2001**. ACS-ABS-INORG #106.
79. "Synthesis of a Polycarbonate of Glycerol."
William C. Ray III and Mark W. Grinstaff
222nd American Chemical Society, Chicago, IL, **2001**. ACS-ABS-POLY #408.
80. "Divergent Synthesis of Biodendrimers From Glycerol and Caproic Acid."
Meredith T. Morgan and Mark W. Grinstaff
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81. "Biologically Inspired Dendrimers Based on Glycerol and Succinic Acid."
Michael A. Carnahan and Mark W. Grinstaff
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82. "Cell Micropatterning Substrates via Two-Photon Induced Polymerization."
Elisabeth B. Walsh, Nicole H. Grynviski, and Mark W. Grinstaff
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83. "Development of a Photocrosslinkable Hyaluronan Hydrogel for Cartilage Repair."
Lawrence M. Boyd, Kimberly A. Smeds, Helawe Betre, Mark W. Grinstaff, and Lori A. Setton
BMES, RTP, NC, **2001**.

84. "One-photon and Multi-photon Cell Patterning."
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85. "Biodendrimers: New Polymers for Medical Applications."
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Mark W. Grinstaff
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88. "Poly(thiophene) Nanowires on a Silicon (111) Wafer."
Benjamin W. Maynor, Shaun F. Filocamo, Mark W. Grinstaff, and Jie Liu
223rd American Chemical Society, Orlando, FL, **2002**. ACS-ABS-PMES #156.
89. "¹⁹⁵Pt, ¹H, and ¹³C NMR of Structure and Dynamics in 6 Novel Platinum(II) Donor-Acceptor Chromophores."
Anthony A. Ribeiro, Karl Base, Mark T. Tierney, Julie Weinstein, and Mark W. Grinstaff
43rd Experimental NMR Conference, Pacific Grove, CA, **2002**, ABS #108.
90. "Designing New Sealants for Ophthalmic Surgeries: Hybrid Linear-Biodendritic Copolymers."
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28th Biomaterials Annual Meeting, Tampa, FL, **2002**, ABS #568.
91. "Towards Improving Titanium Implant Integration using Interfacial Biomaterials."
Elisabeth B. Walsh, Daniel J. Kenan, and Mark W. Grinstaff
28th Biomaterials Annual Meeting, Tampa, FL, **2002**, ABS #578.
92. "Orthogonal Protecting Groups for the Synthesis of Biocompatible Block-Type Dendrimers."
Nathanael R. Luman and Mark W. Grinstaff
28th Biomaterials Annual Meeting, Tampa, FL, **2002**, ABS #652.
93. "Synthesis and Characterization of Copolycarbonate-esters of Glycerol and Lactic Acid."
William C. Ray III and Mark W. Grinstaff
28th Biomaterials Annual Meeting, Tampa, FL, **2002**, ABS #661.

94. "Novel Light Activated Tissue Adhesives for Repair of Linear Corneal Lacerations."
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224th American Chemical Society, Boston, MA, **2002**, ACS-ABS-I&EC #41.
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97. "Spectroscopic Investigation of the Microenvironment within Biodendrimers."
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98. "Electrochemical Dip-Pen Nanolithography of Aniline and Pyrrole."
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Kimberly A. Smeds, Nathanael R. Luman, and Mark W. Grinstaff
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101. "Photocrosslinkable Triblock Copolymers of Ethylene Glycol and Glycerol."
William C. Ray III and Mark W. Grinstaff
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102. "Toward the Synthesis of Tailored Dendrimers for Specific Applications."
Michael A. Carnahan and Mark W. Grinstaff
224th American Chemical Society, Boston, MA, **2002**, ACS-ABS-POLY#436.
103. "A Novel Laser Activated Tissue Adhesives for Corneal Surgery."
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104. “Biodendrimers: New Polymers for Wound Management.”
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105. “Synthèse de Nucléoamphiphiles Non-ioniques Dérivés de Sucres.”
Jérôme Arigon, Jean-Michel Lacombe, Mark W. Grinstaff, and Philippe Barthelemy
XVIeme Journée de la Chimie SFC PACA, Marseille, France, **2003**.
106. “Synthèse et Caractérisation de Nucléosides Amphiphiles Dérivés de Phosphatidylcholine.”
Louis Moreau Mohamed El Maatoui, Mark W. Grinstaff, and Philippe Barthélémy^{a)}
XVIeme Journée de la Chimie SFC PACA, Marseille, France, **2003**.
107. “Novel Bifunctional Peptides for Adhering Cells to PGA and Nylon.”
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29th Biomaterials Annual Meeting, Biomaterial Surfaces and Interfaces, Reno, NV, **2003**.
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108. “Methacrylated Hybrid Linear-dendritic Copolymers from Poly(ethylene glycol), Succinic Acid, and Glycerol for In Situ Polymerization.”
Micheal A. Carnahan, Lovorka Degoricija, and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Biomaterials for In Situ Tissue Engineering, Reno, NV, **2003**. ABS# 432.
109. “Biodendrimers for In Situ Photopolymerization.”
Mark W. Grinstaff, Michael A. Carnahan, Meredith T. Morgan, Nathanael R. Luman, Lovorka Degoricija, Chad E. Immoos, Michel Wathier, Stella Finkelstein, Paul Kang, Crystan Middleton, Andy Velazquez, and Terry Kim
29th Biomaterials Annual Meeting, Biomaterials for In Situ Tissue Engineering, Reno, NV, **2003**. ABS# 433.
110. “Convergent Synthesis of Amphiphilic Dendrons From Glycerol, Succinic Acid, and Myristic Acid.”
Nathanael R. Luman and Mark W. Grinstaff
29th Biomaterials Annual Meeting, Biomaterials for In Situ Tissue Engineering, Reno, NV, **2003**. ABS# 546.
111. “Encapsulation of 10-Hydroxycamptothecin Within a Biodendrimer.”
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30th Annual Meeting and Exposition of the Controlled Release Society, Glasgow, Scotland, **2003**.
112. “Nucleo-amphiphiles for DNA Supramolecular Assemblies.”
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39th IUPAC and 86th Conference of the Canadian Society of Chemistry, Ottawa, Canada, **2003**. ABS# OR.10.P01.

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114. “Affinities of Multifunctional Peptides Coatings for Polymeric and Metallic Surfaces.” Elisabeth B. Walsh, Woo Lee, Stefan Zauscher, Daniel J. Kenan, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2003**. ABS #F5.31.
115. “Transparent Hydrogels for Ophthalmic Surgeries.”
Mark W. Grinstaff and Michel Wathier
Materials Research Society, Boston, MA, **2003**. ABS #F8.2.
116. “Interfacial Biomaterial Coatings for Engineered Human Blood Vessels.”
Mark W. Grinstaff, Xin Huang, Amy Solan, Laura E. Niklason, and Daniel J. Kenan
Materials Research Society, Boston, MA, **2003**. ABS #F8.3.
117. “Synthesis of Glycosylated Amphiphiles.”
Jérôme Arigon, Philippe Barthélémy, and Mark W. Grinstaff
IIèmes Journées Franco-Italiennes de la Chimie, Genova, Italia, **2004**.
118. “Hydrogels of DNA and Nucleoside-based Phosphocholine Amphiphiles.”
Louis Moreau, Philippe Barthélémy, Mohamed El Maataoui, and Mark W. Grinstaff
227th American Chemical Society, Anaheim, CA, **2004**. ACS-ABS-BIOT #298.
119. “Neutral Nucleoside Amphiphiles for the Condensation of DNA.”
Philippe Barthélémy, Carla A. H. Prata, Benjamin W. Maynor, Shaun F. Filocamo, Chad E. Immoos, and Mark W. Grinstaff
227th American Chemical Society, Anaheim, CA, **2004**. ACS-ABS-BIOT #299.
120. “Synthesis of Degradable, Cationic Biodendrimers for Gene Delivery.”
Carla Prata, Nathanael Luman and Mark W. Grinstaff
227th American Chemical Society, Anaheim, CA, **2004**. ACS-ABS-BIOT #301.
121. “Cationic Nucleolipids for Transfection.”
Pauline Chabaud, Michel Camplo, Guillaumne Serin, Louis Moreau, Philippe Barthélémy, and Mark W. Grinstaff
DNA Supramolecular Assemblies Workshop, Avignon, France, **2004**.
122. “Phosphorylated Nucleoamphiphiles.”
Nathalie Campins, Louis Moreau, Mark W. Grinstaff, and Philippe Barthélémy
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123. “Supramolecular Assemblies of Nucleoside Phosphocholine Amphiphiles.”
Louis Moreau, Mark W. Grinstaff, Mohamed El Mataoui, and Philippe Barthélémy
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124. "Neutral Nucleoside Amphiphiles for DNA Condensation and DNA-Supramolecular Assemblies."
Chad E. Immoos, Philippe Barthélémy, Carla A. H. Prata, Shaun F. Filocamo, Benjamin W. Maynor, S. A. Nadeem Hashmi, Stephen J. Lee, and Mark W. Grinstaff
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126. "Design of Interfacial Biomaterials for Engineered Human Blood Vessels."
Xin Huang, Amy Solan, Mark W. Grinstaff, Daniel J. Kenan, Laura E. Niklason
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127. "Preparation of Polymeric Nanostructures Using Electrochemical Dip-Pen Nanolithography."
Shaun F. Filocamo, Benjamin W. Maynor, Jie Liu, Chad E. Immoos, and Mark W. Grinstaff
6th Annual Northeast Student Chemistry Research Conference, Boston, MA, **2004**.
128. "Biodendritic Amphiphiles."
Nathanael Luman and Mark W. Grinstaff
6th Annual Northeast Student Chemistry Research Conference, Boston, MA, **2004**.
129. "NMR of Water Soluble Dendritic Molecular Capsules for Hydrophobic Compounds."
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45th Experimental NMR conference, Asilomar, CA, **2004**.
130. "DNA Wrap Assays: Redox-Active DNA-PEG Triblock Macromolecules for Electrochemical Gene Detection."
Chad E. Immoos, Stephen J. Lee, Mark W. Grinstaff
228nd American Chemical Society, Philadelphia, PA, **2004**. ACS-ABS-INOR #104.
131. "Physical and Mechanical Properties of Poly(glycerol-succinic acid-ethylene glycol) Hyperbranched Polymers."
Steve R. Meyers and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #317.
132. "Evaluation of Lysine Dendrons for Self-crosslinking Hydrogels."
Michel Wathier, Abigail M. Oelker, and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #330.
133. "FRAP Measurement of Diffusion Coefficients in Hydrogels."
Jessica Kaufman, Abigail M. Oelker, and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #338.

134. "Synthesis and Characterization of Bola-type Biodendrimers Derived from Poly(ethylene glycol), Succinic Acid, and Glycerol."
Lovorka Degoricija and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #352.
135. "Self-gelling Polymers for the Repair of Cornea Lacerations."
Michel Wathier, Pil J. Jung, Terry Kim, and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #377.
136. "Cationic Amphiphilic Biodendrimers for Gene Delivery."
Carla A. H. Prata, Nathanael R. Luman, and Mark W. Grinstaff
228nd American Chemical Society, Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**. ACS-ABS-POLY #408.
137. "Endothelialization of Polymer and Metal Substrates."
Steven R. Meyers, Elizabeth B. Walsh, Peggy Day, Daniel J. Kenan, and Mark W. Grinstaff
30th Biomaterials Annual Meeting, Memphis, USA, **2005**. ABS# 518.
138. "Biodendrimer-based Scaffolds for Cartilage Repair."
Lovorka Degoricija, Serge Sontjens, and Mark W. Grinstaff
30th Biomaterials Annual Meeting, Memphis, USA, **2005**. ABS# 438.
139. "Hydrogels Composed of Dendritic Macromers For Drug Delivery."
Aaron P. Griset, Michel Wathier, Steven R. Meyers, and Mark W. Grinstaff
30th Biomaterials Annual Meeting, Memphis, USA, **2005**. ABS# 630.
140. "Nucleoside Phosphocholine Amphiphiles for In Vitro DNA Transfection."
Louis Moreau, Mark W. Grinstaff, and Philippe Barthélémy
229th American Chemical Society, Surfactant Self-Assembly: Functionalizing Surfactants, San Diego, CA, **2005**. ACS-ABS-COLL #338.
141. "Mechanical Properties of Peptide-Based Dendron Hydrogels."
Abigail M. Oelker, Michel C. Wathier, and Mark W. Grinstaff
BU Science and Engineering Day, Boston, MA, **2005**.
142. "Endothelialization of Polymer and Metal Substrates."
Steven R. Meyers, Elizabeth B. Walsh, Peggy Day, Daniel J. Kenan, and Mark W. Grinstaff
BU Science and Engineering Day, Boston, MA, **2005**.
143. "Dendrimer Hydrogels as New Alternatives for the Repair of Clear Corneal Incisions."
Michel Wathier, Michael A. Carnahan, Pil Jung, Terry Kim, and Mark W. Grinstaff
The Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, FL, **2005**. # 4993

144. “Dendritic Adhesives to Secure Laser In Situ Keratomileusis Flaps.”
Mark W. Grinstaff, Paul C. Kang, Michel Wathier, Michael A. Carnahan, and Terry Kim
The Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, FL, **2005**. # 4995
145. “A Novel Biodendritic Adhesive for Sutureless Vitreous Surgeries: In Vitro Studies of Wound Strength.”
C. Starck Johnson, Michel Wathier, Michael A. Carnahan, Mark W. Grinstaff, and Terry Kim
The Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, FL, **2005**. #5443.
146. “Nucleolipids as Tools for Supramolecular Architectures.”
Louis Moreau, Mark W. Grinstaff, Mohamed El Mataoui, Fabio Ziarelli, and Philippe Barthélémy
Physical-chemical Foundations of High Technologies of XXIst Century, Russian Academy of Sciences, Moscow, Russia. **2005**.
147. “Charge-reversal Lipids for Gene Transfection.”
Carla A. H. Prata, Philippe Barthélémy, Yougen Li, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
American Society of Gene Therapy, Baltimore, MD, **2006**. # 527.
148. “Charge Switchable Helper Lipids for Gene Delivery.”
Carla A. H. Prata, Yougen Li, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
American Society of Gene Therapy, Baltimore, MD, **2006**. #636.
149. “Non-viral Charge Reversal Vectors for Nucleic Acid Delivery.”
33rd Annual Meeting of the Controlled Release Society, Vienna, Austria, **2006**.
150. “Immobilized Hydrogels for High Throughput Screening.”
Michel Wathier, Melissa Dominguez, Scott E. Schaus, and Mark W. Grinstaff
IBCs 11th Annual World Congress, Boston, MA, **2006**.
151. “In-situ Adsorption Behavior of Interfacial Biomaterials for Mediating Cell-Substrate Interactions.”
Xiaojuan Khoo and Mark W. Grinstaff
QCM-D World Conference, Boston, MA, **2006**.
152. “Novel Pemetrexed-eluting Microspheres Inhibit Local Growth of Mesothelioma Tumor Cells.”
Sarah Lucier, Jesse B. Wolinsky, Joe Walpole, Mark W. Grinstaff, Yolonda Colson
2nd Annual Academic Surgical Congress, Phoenix, AZ, **2006**.
153. “Biodegradable and Tunable Poly(carbonate-ester)s Based on Units of γ -Caprolactone and Glycerol.”
Jesse Wolinsky and Mark W. Grinstaff
32nd Biomaterials Annual Meeting, Chicago, USA, **2007**. #350.

154. “The Use of Interfacial Peptide Coatings for Vascular Device Applications.”
Steven R. Meyers, Daniel J. Kenan, and Mark W. Grinstaff.
32nd Biomaterials Annual Meeting, Chicago, USA, **2007**. #493.
155. “Acid-Sensitive Polymeric Nanospheres for Drug Delivery.”
Aaron P. Griset and Mark W. Grinstaff
32nd Biomaterials Annual Meeting, Chicago, USA, **2007**. #551.
156. “Interfacial Peptide Coatings Facilitate Biological Control on Material Surfaces
Steven R. Meyers, Daniel J. Kenan, Amy K. Solan, and Mark W. Grinstaff.
Trans. 32nd Biomaterials Annual Meeting, Chicago, USA, **2007**. #766.
157. “Charge-reversal Amphiphiles for DNA and siRNA Transfection.”
Carla A. H. Prata, Sang Kwon, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
American Society for Gene Therapy 10th Annual Meeting, Seattle, USA, **2007**. #906.
158. “Peptidic Based Amphiphiles for Gene Delivery.”
Carla A. H. Prata, Sang Kwon, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
American Society for Gene Therapy 10th Annual Meeting, Seattle, USA, **2007**. #908.
159. “Antineoplastic Drug Delivery Through Use of Polymer Nanoparticles.”
Joseph Walpole, Aaron Griset, Ann Gaffey, Emily Southard, Mark W. Grinstaff, and
Yolonda L. Colson
BWH Biomedical Research Institute 2007 Research Excellence Awards, BWH, Boston, MA,
USA, **2007**.
160. “Charge-reversal Amphiphiles for DNA and siRNA Delivery.”
Carla A. H. Prata, Sang Kwon, Dan Luo, Thomas J. McIntosh, and Mark W. Grinstaff
Controlled Released Society, Long Beach California, USA, **2007**. #604.
161. “Charge-reversal Amphiphiles for siRNA Delivery.”
Sang Kwon, Carla A. H. Prata, Dan Luo and Mark W. Grinstaff
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-BIOL #183.
162. “Synthesis of High Molecular Weight Polymers Using ROMP.”
Michel Wathier, Stephanie S. Stoddart, and Mark W. Grinstaff
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-POLY #116.
163. “Characterization of Collagen-Modified Poly(2-Hydroxyethyl Methacrylate) Hydrogels for
Use as Corneal Implants.”
Abigail M. Oelker and Mark W. Grinstaff
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-POLY #500.
164. “Biodendrimer-based Hydrogel Scaffolds for Cartilage Tissue Repair.”
Prashant N. Bansal, Lovorka Degoricija, Neel S. Joshi, Brian Snyder, and Mark W.
Grinstaff.
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-PMSE #259.

165. “Cytotoxicity and Cellular Uptake of a Dendrimer-encapsulated Camptothecin.”
Aaron P. Griset, Meredith T. Morgan, Yuka Nakanishi, David J. Kroll, Aaron P. Griset,
Michael A. Carnahan, Michel Wathier, Nicholas H. Oberlies, G. Manikumar, Mansukh C.
Wani, and Mark W. Grinstaff
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-PMSE #311.
166. “Functionalizable poly(carbonate-co-ester)s for the Preparation of Covalently-labeled
Nanoparticles.”
Jesse B. Wolinsky and Mark W. Grinstaff
234th American Chemical Society, Boston, MA, **2007**, ACS-ABS-PMSE #400.
167. “Local Implantation of Drug-eluting Films Prevents Growth of Non-small Cell Lung
Cancer.”
Rong Liu, Joseph Walpole, Jesse B. Wolinsky, Mark W. Grinstaff, and Yolonda L. Colson
Center for Integration of Medicine and Innovative Technology: Innovation Congress,
Boston, MA, **2007**.
168. “Multifunctional Peptide-based Coatings for the Facile Modification of Device Interfaces.”
Xiaojuan Khoo, Steven R. Meyers, George O’Toole Jr., Daniel J. Kenan, and
Mark W. Grinstaff
Center for Integration of Medicine and Innovative Technology: Innovation Congress,
Boston, MA, **2007**.
169. “Quantitative CT Arthrography: Correlation with the Biochemical Content and
Biomechanical Properties of Articular Cartilage.”
Prashant N. Bansal, Neel Joshi, Vahid, Entezari, Mark W. Grinstaff, and Brian D. Snyder
Center for Integration of Medicine and Innovative Technology: Innovation Congress,
Boston, MA, **2007**.
170. “Pseudopolysaccharides Mimics: Treatment for Knee Osteoarthritis.”
Stephanie S. Stoddart, Michel Wathier, Prashant N. Bansal, Brian D. Snyder, Mark W.
Grinstaff
54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, **2008**, # 708.
171. “Quantitative CT Arthrography Can Predict the Glycosaminoglycan (GAG) Content and
Biomechanical Properties of Articular Cartilage.”
Prashant N. Bansal, Neel Joshi, Vahid, Entezari, Mark W. Grinstaff, and Brian D. Snyder
54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, **2008**, # 1655.
172. “Quantitative CT Arthrography Can Measure the Glycosaminoglycan (GAG) Content of
Articular Cartilage in Intact and Degraded Joints.”
Prashant N. Bansal, Neel Joshi, Vahid, Entezari, Mark W. Grinstaff, and Brian D. Snyder
54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, **2008**, # 1657.
173. “A Novel Cationic Iodinated Contrast Agent is More Sensitive to Changes in the
Glycosaminoglycan (GAG) Content of Articular Cartilage than Conventional Anionic
Iodinated Contrast Agents Measured by CT Arthrography.”
Neel Joshi, Prashant N. Bansal, Brian D. Snyder Mark W. Grinstaff
54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, **2008**, # 1658.

174. "Epithelialization of Collagen-Modified Poly(2-hydroxyethyl methacrylate) Hydrogels for Corneal Implants."
Abigail M. Oelker and Mark W. Grinstaff
The Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, FL, **2008**. #5714.
175. "Amphiphilic Dendrimers for Gene Delivery."
Carla A. H. Prata and Mark W. Grinstaff
American Society of Gene Therapy, Boston, MA **2008**. #488.
176. "Peptidic Amphiphiles for DNA Delivery."
Xiaoxing Zhang, Carla A. H. Prata, Thomas J. McIntosh, and Mark W. Grinstaff
American Society of Gene Therapy, Boston, MA **2008**. #834.
177. "siRNA Knockdown by Peptidic Amphiphiles."
Carla A. H. Prata and Mark W. Grinstaff
American Society of Gene Therapy, Boston, MA **2008**. #835.
178. "Polysaccharide Mimics for Lubrication of Cartilage Joints."
Michel Wathier, Stephanie Stoddart, Prashant Bansal, Brian D. Snyder, and Mark W. Grinstaff
2008 World Biomaterials Congress, Amsterdam, Netherlands, **2008**. #55.
179. "Synthesis, Biocompatibility, and Degradation Studies of Pseudopolysaccharides."
Stephanie Stoddart, Michel Wathier, Brian D. Snyder, and Mark W. Grinstaff
2008 World Biomaterials Congress, Amsterdam, Netherlands, **2008**. #56.
180. "Synthesis of First Nucleo-Amphiphiles Derived from Universal Bases."
Claire Ceballos, Dominique Payet, Suzanne Giorgio, Mark W. Grinstaff, and Michel Camplo
5e Rencontre de Chimie Organique de Marseille (RCOM5) "Synthèse et chimie pour le vivant", Marseille, France, **2008**.
181. "Cationic Nucleoside Lipids possessing a 3-Nitropyrrole Universal Base for siRNA."
Claire Ceballos, Carla A. H. Prata, Dominique Payet, Suzanne Giorgio, F. Garzinoa, Philippe Barthélémy, Mark W. Grinstaff, and Michel Camplo
5ème Journée Scientifique "Biologists, Chimistes et Physiciens, aux frontières du vivant" Marseille, France, **2008**.
182. "Multifunctional Peptide-based Coatings for the Facile Modification of Device Interfaces."
Xiaojuan Khoo, Steven R. Meyers, George O'Toole Jr., Daniel J. Kenan, and Mark W. Grinstaff
BioInterfaces Sciences Gordon Research Conference, Aussois, France, **2008**.

183. "Novel Drug-Eluting Expansile Nanoparticles Prevent Locoregional Growth of Mesothelioma and Markedly Improve Survival."
Emily Southard, Rong Liu, Aaron Griset, Mark W. Grinstaff, and Yolonda Colson
BWH Biomedical Research Institute Cancer Research Center Retreat, BWH, Boston, MA, **2008**.
184. "The Effect of Spacer Length, Rigidity and Hydrophilicity of Charge-reversal Amphiphiles on DNA and siRNA Delivery."
Xiao-Xiang Zhang, Carla A. H. Prata, Thomas J. McIntosh, Philippe Barthelemy, and Mark W. Grinstaff
American Society of Gene Therapy 12th Annual Meeting, San Diego, CA, **2009**.
185. "Amphiphiles Possessing a Tri-peptide Head Group for DNA Delivery."
Xiao-Xiang Zhang, Carla A. H. Prata, Thomas J. McIntosh, and Mark W. Grinstaff
American Society of Gene Therapy 12th Annual Meeting, San Diego, CA, **2009**.
186. "Bacteriophobic Peptide-based Coatings for Modification of Device Interfaces."
Xiaojuan Khoo, George O'Toole Jr., Brian Snyder, Daniel J. Kenan, and Mark W. Grinstaff
Biomaterials and Tissue Engineering Gordon Research Conference, Holderness, NH, **2009**.
187. "Cationic Agents for CT Scans."
Michael Davis, Sarah Stidman, Neel S. Joshi, Prashant N. Bansal, and Mark W. Grinstaff
Boston University Summer Research Internship Program, Boston, MA, **2009**.
188. "Synthesis, Characterization, and In vitro Studies of Photo-Caged Charge reversal Amphiphiles for Application in Gene Delivery."
Jiazuo Feng and Mark W. Grinstaff
Boston University 12th Annual Undergraduate Symposium, Boston, MA, **2009**.
189. "In vitro Efficacy of Paclitaxel-eluting PH-responsive Expansile Nanoparticles in Ovarian Cancer."
Morgan D. Schulz, Aaron Griset, Mark W. Grinstaff, and Yolonda L. Colson
Fall 2009 Brigham and Women's Hospital Biomedical Research Institute Research Excellence Awards Poster Session, Boston, MA, **2009**.
190. "Supramolecular Ionic Liquids."
Michel Wathier and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2009**. ABS #BB5.14.
191. "Facile Synthesis of Ionic Liquids."
Michel Wathier, Michel Camplo, Jennifer Chow, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2009**. ABS #BB5.15
192. "Click Chemistry for Efficient Synthesis of New Phosphonium-Based Ionic Liquids for Use as Broad Spectrum Antimicrobials."
Samantha Byrnes, Michel Wathier, George O'Toole, and Mark W. Grinstaff
Materials Research Society, Boston, MA, **2009**. ABS #BB5.16.

193. “Non-Invasive Evaluation of Cartilage in a Fracture Callus with a Cationic CT Contrast Agent.”
Lauren N. M. Hayward, Neel S. Joshi, Luo C. Gerstenfeld, Mark W. Grinstaff, and Elise F. Morgan
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
194. “Contrast Enhanced CT Imaging of Cartilage: Effect of Matrix GAG Content.”
Prashant N. Bansal, Neel S. Joshi, Vahid Entezari, Mark W. Grinstaff, and Brian D. Snyder
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
195. “Novel Cationic Contrast Agents for Glycosaminoglycan Quantification in Articular Cartilage Using Computed Tomography.”
Prashant N. Bansal, Neel S. Joshi, Vahid Entezari, Bethany C. Malone Brian D. Snyder, and Mark W. Grinstaff
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
196. “The Effect of Cationic Contrast Agent Concentration on GAG Quantification Using Computed Tomography.”
Rachel C. Stewart, Prashant N. Bansal, Neel S. Joshi, Samir S. Shah Brian D. Snyder, and Mark W. Grinstaff
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
197. “Effect of Mechanical Convection on the Partitioning of an Iodinated Anionic Contrast Agent in a Bovine Patellar Model Under Simulated Walking Cycle.”
Vahid Entezari, Prashant N. Bansal, Neel S. Joshi, Rachel C. Stewart, Mark W. Grinstaff, and Brian D. Snyder.
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
198. “A Synthetic Polymer for Efficacious Boundary Lubrication of Articular Cartilage.”
Prashant N. Bansal, Michel Wathier, Stephanie S. Stoddardt, Samir S. Shah, Brian D. Snyder, and Mark W. Grinstaff
56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, USA, **2010**.
199. “Synthesis and Characterization of a Charge-Reversal Photo-Active Amphiphile.”
Caroline M. LaManna, Jiazuo H. Feng, and Mark W. Grinstaff
Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, #554.
200. “PEGylated-Peptide Coatings for the Inhibition of Pathogenic Biofilms on Titanium Metal.”
Xiaojuan Khoo, George O’Toole, Daniel J. Kenan, Mark W. Grinstaff
35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, #840.
201. “Synthesis, Characterization and Lymphatic Trafficking of Polymeric Nanoparticles.”
Kimberly Ann V. Zubris, Onkar Khullar, John V. Frangioni, Yolonda L. Colson and Mark W. Grinstaff
35nd Biomaterials Annual Meeting, Seattle, WA, USA, **2010**, #918.
202. “Efficacy of Paclitaxel-eluting Nanoparticles in Breast Cancer.”
Kimberly Ann V. Zubris, Rong Liu, Yolonda L. Colson and Mark W. Grinstaff
Particles 2010 Annual Meeting, Orlando, FL, USA, **2010**, #240.

203. “Paclitaxel-loaded Nanoparticles Prevent Malignant Peritoneal Mesothelioma in Vivo.”
Yolonda L. Colson, Kimberly Ann V. Zubris, Morgan Schultz, and Mark W. Grinstaff
Particles 2010 Annual Meeting, Orlando, FL, USA, **2010**, #240.
204. “Novel Cationic Contrast Agents for Glycosaminoglycan (GAG) Quantification in Articular Cartilage Using Computed Tomography.”
Prashant N Bansal, Neel S Joshi, Vahid Entezari, Bethany C Malone, Brian D Snyder, and Mark W Grinstaff
Musculoskeletal Biology and Bioengineering Gordon Research Conference, Andover, NH, **2010**.
205. “Affinity and Exclusion of Cationic and Anionic Contrast Agents for Imaging Articular Cartilage.”
Rachel C Stewart, Prashant N Bansal, Neel S Joshi, Samir S. Shah, Brian D Snyder, and Mark W Grinstaff
Musculoskeletal Biology and Bioengineering Gordon Research Conference, Andover, NH, **2010**.
206. “In vivo Diffusion Kinetics of Anionic and Cationic Contrast Agents in a NZW Rabbit Knee Model.”
Prashant N Bansal, Vahid Entezari Rachel C Stewart, Hrvoje Lusic, Brian D Snyder, and Mark W Grinstaff
Musculoskeletal Biology and Bioengineering Gordon Research Conference, Andover, NH, **2010**.
207. “Near-infrared Image Guided Lymphatic Therapy with Polymeric Nanoparticles in a Large Animal Model.”
Kimberly Ann V. Zubris, Onkar Khullar, John V. Frangioni, Yolonda L. Colson, and Mark W. Grinstaff
Drug Carriers in Medicine and Biology Gordon Research Conference, Watervalley, NH, **2010**.
208. “Unique Properties of Expansile Polymeric Nanoparticles and Their In vivo Anti-Cancer Efficacy.”
Kimberly Ann V. Zubris, Morgan D. Schulz, Aaron P. Griset, Rong Liu, Yolonda L. Colson, and Mark W. Grinstaff
Drug Carriers in Medicine and Biology Gordon Research Conference, Watervalley, NH, **2010**.
209. “Glycosyl-nucleoside Amphiphiles as Components of Nanostructured Hydrogels with Nucleic Acid Delivery Capabilities.”
Guilhem Godeau, Jonah A. Kaplan, Philippe Antoine Barthélémy, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, COLL#206.
210. “Mechanical Properties of Glycosyl-nucleoside Lipid Hydrogels.”
Jonah A Kaplan, Guilhem Godeau, Philippe Barthélémy, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, COLL#259.

211. "Role of Macropinocytosis in DNA Transfections with Charge-reversal Amphiphiles."
Xiaoxiang Zhang, Phillip Allen, and Mark W. Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, COLL#300.
212. "Synthesis and Characterization of Supramolecular Polymer Networks via Ionic Interactions."
Xinrong Lin, Michel Wathier, Bela Suki, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, POLY#104.
213. "Inhibition of In vivo Lung Tumor Growth by Prolonged Local Delivery of Hydroxycamptothecin using Poly(ester-carbonate)."
Stefan T Yohe, Jonah A Kaplan, Jesse A Wolinsky, Rong Liu, Joe Walpole, Lucian R Chirieac, Yolonda L Colson, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, POLY#113.
214. "Effect of Molecular Charge in Computed Tomography Imaging Agents."
Hrvoje Lusic, Neel S Joshi, Rachel C Stewart, Prashant N Bansal, Brian D Snyder, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, MEDI#436.
215. "Computed Tomography (CT) Contrast Agents for Determining Cartilage Health."
Rachel C Stewart, Prashant N Bansal, Neel S Joshi, Vahid Entezari, Bethany C Malone, Brian D Snyder, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, MEDI#424.
216. "Dendrimer Based CT Contrast Agents for GAG Quantification."
Sarah E Stidham, and Mark W Grinstaff
240th American Chemical Society National Meeting, Boston, MA, USA, **2010**, MEDI#426.
217. "Synthesis and Characterization of Supramolecular Polymer Networks Prepared Using Ionic Interactions."
Xinrong Lin, Reimi Yonekura, Michel Wathier, Bela Suki, and Mark W. Grinstaff
SupraBio: Recent Advances on Supramolecular Systems Involving Biological Molecules and/or Bioinspired Compounds, Centre de Recherches Paul Pascal, Pessac, France, **2010**.
218. "Expansile Polymer Nanoparticles."
Kimberly Ann V. Zubris, Morgan D. Schulz, Aaron P. Griset¹, Rong Liu, Yolonda L. Colson, and Mark W. Grinstaff
SupraBio: Recent Advances on Supramolecular Systems Involving Biological Molecules and/or Bioinspired Compounds, Centre de Recherches Paul Pascal, Pessac, France, **2010**.
219. "Binding Affinities of an Anionic and a Cationic CT Contrast Agent in Articular Cartilage."
Rachel C. Stewart, Prashant N. Bansal, Brian D. Snyder, and Mark W. Grinstaff
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#0216).
220. "A Cationic CT Contrast Agent for Imaging of Soft Callus Formation in Fracture Healing."
Lynn N. M. Hayward, C M. J. de Bakker, Luo C. Gerstenfeld, LC, Mark W. Grinstaff, and Elise F. Morgan
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#1512).

221. “Effect of Mechanical Convection on Diffusion Kinetics of an Anionic Iodinated Contrast Agent into Cartilage Matrix for Contrast Enhanced CT Imaging of Cartilage.”
Vahid Entezari, Prashant N. Bansal, Rachel C. Stewart, Ben Lakin, Mark W. Grinstaff, and Brian D. Snyder
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#1614).
222. “Analysis of Diffusion Kinetics of Anionic and Cationic Iodinated Contrast Agents using In vivo CT Imaging of Rabbit Knee Cartilage.”
Prashant N. Bansal, Vahid Entezari, Rachel C. Stewart, Harry Lusic, Brian D. Snyder, and Mark W. Grinstaff
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#1615).
223. “Contrast Enhanced Imaging of Cartilage Reflects Changes in Both Water and GAG Content.”
Prashant N. Bansal, Rachel C. Stewart, Vahid Entezari, Mark W. Grinstaff, and Brian D. Snyder,
Orthopaedic Research Society, Long Beach, CA, USA, **2011** (#1618).

Awards/Honors of Undergraduate Students:

National

Keeana Sajadi, *Glaxo Summer Undergraduate Fellowship, 2000.*
Henry Feng, *ACS James Flack Norris/Theodore Williams Summer Research Scholarship, 2010.*

University

Melissa Dubowski, *Member of the Top-Ten List of Presenters for BME Day, 2005.*
Joseph Walpole, *#1 Presenter for BME day, 2007.*
Joseph Walpole, *BWH Research Excellence Award, 2007.*
Henry Feng, *UROF Summer Program, 2009.*
Henry Feng, *UROF Summer Program, 2010.*
Ben Weinberg, *Kenneth R. Lutchen Distinguished Summer Fellowship, 2010.*
Henry Feng, *UROF Symposium Awards, 3rd Place Poster Prize, 2010.*

Awards/Honors of Graduate Students:

University

Kimberly A. Smeds, *Amoco Foundation Fellowship, 1998.*
Mark T. Tierney, *Charles K. Bradsher Fellowship, 1998.*
Mark T. Tierney, *Joe Taylor Adams Fellowship, 2000.*
Michael A. Carnahan, *Burroughs Wellcome Fellowship, 2000.*
Xi Hu, *W. C. Brown Fellowship, 2000.*
James A. Parise Jr., *Pelham Wilder Jr. Teaching Award, 2002.*
Xiaoxing (Shawn) Zhang, *Feldman Travel Award, 2010.*

National

Michael C. Carnahan, *Richard D. Gilbert Award in Polymer Science, 2001.*
Elisabeth B. Walsh, *MRS Travel Award, MRS, Boston, MA, 2001.*
Xiaojuan Khoo, *Best Poster Award, QCM-D World Conference, Boston, MA, 2006*
Aaron P. Griset, *Honorable Mention - Poster Competition, 32nd Biomaterials Annual Meeting, Chicago, USA, 2007.*
Steven R. Meyers, *Honorable Mention - Poster Competition, 32nd Biomaterials Annual Meeting, Chicago, USA, 2007.*
Kimberly Ann V. Zubris, *Best Poster Award, Particles 2010 Annual Meeting, Orlando, USA, 2010.*
Rachel Stewart, *Clare Boothe Luce Graduate Fellowship, 2010.*

Awards/Honors of Postdoctoral Fellows and Residents:

University

Joshua Winer M.D., *Mannick Research Award, Brigham and Women's Hospital/ Harvard Medical School, 2008.*

National

Morgan Schulz M.D., *Finalist for the Ethicon-Society of University Surgeons Scholarship Research Award, San Francisco, CA, 2008.*
Onkar Khullar M.D., *Thoracic Surgery Foundation for Research and Education Fellowship, 2009.*

Popular Press:

Our research has been featured in several local and national popular news magazines and journals.

1. "Protein Microspheres Via Ultrasound." *Chemical & Engineering News*, October 15, **1990**.
2. "Make Medical Imaging Effervesce." *Science News*, September 28, **1991**.
3. "Sonic Boon." *The Economist*, October 5, **1991**.
4. "Ultrasound Proves To Be A Versatile Tool For Chemist." *Chemical & Engineering News*, October 7, **1991**.
5. "Chemistry: Putting Good Vibrations to Work." *The Washington Post*, October 7, **1991**.
6. "Hot-spot Bubbles Ease Glassmaking." *Science News*, October 19, **1991**.
7. "Light Comes from Ultrasonic Cavitation in Picosecond Pulses." *Physics Today*, November 17, **1991**.
8. "Firewater, Ultrasound and Energy." *Engineering World*, June 4, **1992**.
9. "Nobel Laureate Signature Award for Graduate Education in Chemistry." *Chemical & Engineering News*, October 11, **1993**.
10. "Diabetes Treatment: Encapsulated Cells Make Insulin in Patient." *Chemical & Engineering News*, March 21, **1994**.
11. "A Wrap for Diabetics." *Duke Dialogue*, November 20, **1998**.
12. "Sugar Coated Cells That Make Insulin." *Business Week*, November 23, **1998**.
13. "Interdisciplinary Research at Duke." *Channel WB22*, 10:00 pm News, November 25, **1998**.
14. "Research Break: High School Outreach Program in Chemistry." *Duke Dialogue*, April 16, **1999**.
15. "Oligonucleotides Modified During Solid-Phase Synthesis." *Chemical & Engineering News*, May 24, **1999**.
16. "DNA Conductance Convergence." *Chemical & Engineering News*, August 23, **1999**.
17. "New Materials for Drug Delivery." *Chemical & Engineering News*, September 18, **2000**.
18. "Custom-Made Biomaterials." *Chemical & Engineering News*, February 5, **2001**.
19. "Biocompatible Dendrimers Raise Implant Tech to New High." *High-Tech Materials Alert*, March 9, **2001**.
20. "Dendrimers Broaden List of Biomaterials." *Chemical & Engineering News*, April 2, **2001**.
21. "Seventh Annual Gilbert Awards Announced-Michael A. Carnahan." *Chemical & Engineering News*, June 11, **2001**.
22. "Use of Glue-Like Polymers Shows Medical Promise." *Duke Dialogue*, September 10, **2001**.
23. "Conducting Polymer Nanowires Created." *Chemical & Engineering News*, January 7, **2002**.
24. "Biodendrimer Seals Wounds in Corneas." *Chemical & Engineering News*, May 13, **2002**.
25. "Here's Looking at You, Kid." *Science, Editors' Choice*, May 24, **2002**.
26. "Dendritic-linear Polymers Can Seal Corneal Lacerations." *Chemistry.org*, July 1, **2002**.
27. "Liquid Knee Repair Possible." *Betterhumans.com*, March 9, **2004**.
28. "New Dendritic Adhesives for Sutureless Ophthalmic Surgical Procedures." *Archives of Ophthalmology: Highlights From This Issue*, June 1, **2004**.
29. "Velcro Therapy." *Science News*, July 31, **2004**.
30. "Cartilage Heal Thyself." *NIBIBeAdvances*, August 2, **2004**.
31. "Biomedical Materials: Eyeball glue." *Nature 431*, 923, August **2004**.
32. "Dendritic Hydrogels Go Easy on the Eyes." *Chemical & Engineering News*, September 27, **2004**.
33. "Research Briefs-Delivering the Goods for Gene Therapy." *B.U. Bridge*, October 8, **2004**.

34. "Glue-Like Polymer Could Replace Sutures Used for Cataract Surgery." *MedicalNewsToday.com*, October 9, **2004**.
35. "I Can See Clearly Now." *Reactive Reports, Chemistry WebMagazine*, October, **2004**.
36. "Branching Polymer Could Heal Cataract Wounds." *Science News*, October 23, **2004**.
37. "Sealing Corneal Incisions With a Drop of Chemistry." *Science Daily.com, ChemLin.de, Scienceblog.com* October, **2004**.
38. "BME Professor Mark Grinstaff Receives Funding for Eye Surgery Development." *MSNBC*, December, **2004**.
39. "Dendritic Macromer Replaces Sutures in Cataract Surgery." *Research Advances, J. Chem. Ed.*, March, **2005**.
40. "Site Miners Will Match Medicine and Engineering: New Program Spots Potential for Life-Saving Collaborations." *BU Today*, January, **2006**.
41. "Site Miners Match Medicine and Engineering." *BMC MedCenter News*, February, **2006**.
42. "BU, BMC, Join Consortium of Experts." *BMC MedCenter News*, March, **2006**.
43. "Ideas and People behind the Coulter Awards." *BU Today*, April, **2006**.
44. "Nanotechnology: Small is the New Big." *Bostonia*, Summer, **2006**.
45. "Eye Glue Debut." *Chemistry World, RSC*, July, **2006**.
46. "Progress on a Bio-Glue for Cornea Surgery." *Medical News Today*, August, **2006**.
47. "Is Suture-Free Penetrating Keratoplasty Possible?" *Cataract and Refractive Surgery Journal*, August, **2006**.
48. "Bridging the Gap: Improving Corneal Repair." *Review of Ophthalmology*, September, **2006**.
49. "Setting the Course for BU: New Strategic Planning Framework Stresses Unity." *BU Today*, December, **2006**.
50. "Dendrimers Improve Cancer Drug Uptake and Antitumor Activity." *Nano.cancer.gov. Nanotech News*, January, **2007**.
51. "Dendrimers Improve Cancer Drug Uptake and Antitumor Activity." *AzoNano.com Nanotechnology News*, January, **2007**.
52. "Material World." *BU Engineering Magazine*, Spring, **2007**.
53. "HyperBranch Medical Technology, Inc. Receives CE Mark for OcuSeal(TM)." *Reuters*, January, **2008**.
54. "Tissue that Grow on Trees." *Materials Views*, February, **2008**.
55. "Biotech Startup Flex Biomedical Flexes BU with Funding." *Mass High Tech: The Journal of New England Technology*, February, **2008**.
56. "Seminar Visits the Intersection of Nanotechnology and Medicine." *BU College of Engineering*, April, **2008**.
57. "CIMIT Science Grants Accelerate Applications of ENG Research." *BU College of Engineering*, June, **2008**.
58. "Kennedy Award Goes to Cancer Advanced-Technology Team." *CIMIT.ORG*, October **2008**.
59. "Start-ups Looking Hard for Capital, but Finding Little." *Boston Globe and Boston.com*, October 11, **2008**.
60. "Grinstaff Wins Award from CIMIT Health Care Consortium." *BU ENG and CHEM website news*, November, **2008**.
61. "Dendrimers Show Antibiotic Activity." *Chemical & Engineering News*, November 3, **2008**.
62. "Fighting Cancer Recurrence." *NECN Live TV Broadcast*, November 26, **2008**.
63. "Nanoparticles Give Cancer Drug a Boost." *Chemistry World*, February 19, **2009**.
64. "Expansile Nanoparticles for the Delivery of Paclitaxel to Treat Lung Cancer." *Nano World News*, February, **2009**.

65. "Acid-Responsive Nanoparticles Expand To Deliver Drugs." *Chemical & Engineering News*, February 23, **2009**.
66. "Tiny Particles Offer Big Promise for Lung Cancer Treatment." *dana-farber.org*, February 26, **2009**.
67. "Biomedical Firm Coming to Madsion." *Wisconsin State Journal*, August 13, **2009**.
68. "Getting Better Visualization of Joint Cartilage Through Cationic CT Contrast Agents." *eurekaalert.org, firstscience.com, esciencenews.com, rdmag.com, brightsurf.com, devicespace.com, english.scienceweek.cz, sciencecentric.com, redorbit.com, physicsnews.com, Genetic Engineering & Biotechnology News, ScienceDaily.com*, September 1, **2009**.
69. "JACS: Cationic CT Contrast Agents More Sensitive for Imaging Cartilage." *healthimaging.com*, September 2, **2009**.
70. "New Substance Provides Clearer Images of Joint Cartilage." *arc.org.uk*, September 2, **2009**.
71. "Journal of the American Chemical Society: Getting Better Visualization Of Joint Cartilage Through Cationic CT Contrast Agents." *facebook.com*, September 3, **2009**.
72. "Cationic CT Contrast Agents Improve Visualization Of Joint Cartilage." *medicalnewstoday.com*, September 3, **2009**.
73. "Cations Cling to Cartilage." *Chemical & Engineering News*, September 21, **2009**.
74. "NIH Grant to Fund Biomaterials Graduate Training Program." *BU College of Engineering Web Site*, October 15, **2009**.
75. "Homing in on Cancer." *BRink Magazine Brigham and Women's Hosptial*, Fall, **2009**.
76. "Prevention of Local Tumor Recurrence Following Surgery Using Low-Dose Chemotherapeutic Polymer Films." *www.mdlinx.com/surgerylinx*, December 12, **2009**.
77. "New Therapy For Prevention of Local Lung Tumor Recurrence." *Brighamandwomens.org* and *insciences.org*, February 3, **2010**.
78. "Boston University Names First Innovator-Of-The-Year." *Boston University Wed Site*, July 28, **2010**.

Undergraduate Courses Taught:

Duke University

Chemistry 23	Advanced General Chemistry (Fall 1997 ; 146 students)
Chemistry 191	Undergraduate Research (1997 - 2003)
Chemistry 23	Advanced General Chemistry (Fall 1998 ; 146 students)
Chemistry 23	Advanced General Chemistry (Fall 1999 ; 162 students)
Chemistry 22	General Chemistry (Spring 2002 ; 180 students)
Chemistry 117	Inorganic Chemistry (Spring 1997 ; 23 students)

Boston University

Chemistry 102	General Chemistry (Spring 2004 ; 130 students)
Chemistry 102	General Chemistry (Spring 2005 ; 166 students)
Chemistry 102	General Chemistry (Spring 2006 ; 221 students)
Chemistry 101	General Chemistry (Fall 2008 ; 157 students)
Chemistry 101	General Chemistry (Fall 2009 ; 253 students)

Graduate Courses Taught:

Duke University

Chemistry 201.2	Biological Chemistry I. Proteins and Enzymes (Fall 1996 ; 14 students)
Chemistry 399	Graduate Research (1997 - 2003)
Chemistry 314	Reaction Mechanisms/Bioinorganic Chemistry (Spring 1999 ; 3 students)
Chemistry 324	Bioinorganic Chemistry (Spring 2001 ; 4 students)
Chemistry 324	Bioinorganic Chemistry (Spring 2002 ; 6 students)
Chemistry 374	Student Seminars on Research Topics (Spring 1998 ; 12 students)
Chemistry 321	Physical Inorganic Chemistry (Fall 2002 ; 7 students)
Biomedical Eng. 265	Biological Material Science (Fall 1997 ; 3 lectures)

Boston University

Chemistry 902	Graduate Research (2003 -)
Biomedical Eng. 900	Graduate Research (2003 -)
Biomedical Eng. 732	Biomaterials: Principles of Tissue Engineering (Fall 2003 ; 3 lectures)
Biomedical Eng. 726	Biomaterials I (Fall 2004 ; 33 students)
Biomedical Eng. 727	Biomaterials II (Spring 2005 ; 20 students)
Biomedical Eng. 726	Biomaterials I (Fall 2005 ; 26 students)
Biomedical Eng. 727	Biomaterials II (Spring 2006 ; 24 students)
Biomedical Eng. 726	Biomaterials I (Fall 2007 ; 15 students)
Biomedical Eng. 727	Biomaterials II (Spring 2008 ; 10 students)
Biomedical Eng. 726	Biomaterials I (Fall 2008 ; 27 students)
Biomedical Eng. 727	Biomaterials II (Spring 2009 ; 23 students)
Biomedical Eng. 726	Biomaterials I (Fall 2009 ; 35 students)
Biomedical Eng. 727	Biomaterials II (Spring 2010 ; 29 students)

College and High School Outreach Programs:

Carolinas-Ohio Science Education Network “Research Experience in Science and Mathematics” (1998-2000). Two graduate students and I participated in this program.

Duke Chemistry High School Outreach Program (1999 - 2003; Principal Investigator/Director of the Program; NSF Career Award).

Project Seed NC Local Section Program (1996 - 2002). One graduate student and I have participated in the program which is focused on disadvantaged local high school students.

Boston Urban Fellow NSF GK12 Program (2008-2009). One graduate student participated in this program which focused on science education with disadvantaged high school students in the Boston Public School system.

Boston Urban Fellow NSF GK12 Program (2010-2011). One graduate student participated in this program which focused on science education with disadvantaged high school students in the Boston Public School system

Departmental and University Service:

Duke University

Departmental

Graduate Admissions Committee	1996 - 1999
Graduate Recruiting Committee (Chair)	1996 - 2001
Assistant Professor Organic Faculty Search Committee	1996 - 1997
First-Year Program and Infrastructure for Undergraduates Committee	1997 - 1998
Biological Chemistry Graduate Recruiting Committee	1997 - 2000
Graduate Awards Committee	1999 - 2000
Steering Committee for the NIH Cellular & Biosurface Engineering	1999 - 2000
Assistant Professor Biomedical Engineering Faculty Search Committee	1999 - 2000
Secondary Appointment Committee	2000 - 2002
Ocular Pharmacologist Search Committee	2000 - 2001

University

Science and Engineering Advisory Committee	2000 - 2001
Office of Science and Technology Review Committee	2002 - 2003

Boston University

Departmental

Graduate Admissions Committee – CH	2003 - 2007
Graduate Affairs Committee – CH	2003 - 2007
Research Support Services Committee – CH	2003 - 2004
Associate Chair of Graduate Affairs – CH	2004 - 2007
Chairs Advisory Committee – CH	2004 - 2005
Alumni News Letter Committee - CH	2004 - 2006
Chair of the NMR Use Committee - CH	2004 - 2005
Graduate Program Committee – BME	2005 -
Chair of the Biomaterials Faculty Search Committee - BME	2005 - 2008
Tenure Review Committee for Professor Schaus - CH	2005 - 2006
Chairs Advisory Committee II– CH	2006 -
Chair of the Biological Chemistry Faculty Search Committee - CH	2006 - 2007
Undergraduate Affairs Committee - BME	2006 - 2007
Chair of the Biological Chemistry Faculty Search Committee - CH	2009 - 2010

University

Chemical Instrumentation Center, Steering Committee	2004 - 2006
Charles River Campus Patent Committee	2005 -
BU Internal Fellowship Review	2005
BU Site Miner	2006-
BU-CIMT Graduate Fellowship Committee	2007 -
BU Research Council	2008 -

Professional Activities:

1. Session Chairman, *NSF Materials Workshop III*, San Jose, CA, **1995**.
2. Session Chairman, *ACS Meeting Inorganic Section (Exxon Award)*, Boston, MA, **1998**.
3. Co-Organizer, *Workshop on Nanoscience for the Soldier*, Research Triangle Park, NC, **2001**.
4. Duke Representative for Science Day 2001, Sponsored by The Science Coalition, Washington, DC, **2001** (met with Congressmen Price and Etheridge and the science advisors of Congressman Taylor, Senators Helms and Edwards).
5. Faculty of 1000: Chemical Biology Members: Macromolecular Chemistry, **2001**;
Heads of Section: Eric Kool (USA) and Laura Kiessling (USA); Faculty Members:
Benjamin Cravatt (USA), Mark Grinstaff (USA), Brent Iverson (USA), Thisbe K. Lindhorst (Germany), Tom Muir (USA), Michael Pirrung (USA), Peter Seeberger (USA), Bradley Smith (USA), Dipankar Sen (Canada), Suzanne Walker (USA), Ross Weatherman (USA), & Eric Westhof (France)
6. Co-Organizer with the Army Research Laboratory, *Workshop on Biotechnology for the Soldier*, Research Triangle Park, NC, **2002**.
7. Reviewer for the Biophysical and Chemical Sciences Review Group (F04), National Institutes of Health, **2002**.
8. Co-Organizer, *Nanoscale Sensing: Why and How?*, ACS Meeting, New Orleans, LA, **2003**.
9. Reviewer for the Special Emphasis Panel (ZRG1 SSS2(2) 55), National Institutes of Health, DC, **2003**.
10. Co-Organizer, *DNA Supramolecular Assemblies Workshop*, Avignon, France, **2004**.
11. Reviewer for the *Minority Predoctoral Fellowships, NIH F31 Study Section*, DC, **2006**
12. Chair, *IEEE 2006 Conference, Symposium on Novel Carriers for Drug and Gene Delivery*, New York, NY, **2006**.
13. Co-Organizer, *DNA Supramolecular Assemblies II Workshop*, Bordeaux, France, **2006**.
14. Organizing Committee: *ARVO Cross-sectional Nanotechnology Group*, FL, **2007**.
15. External Review Committee, *Army Research Office*, Durham, NC, **2009**.
16. Reviewer for the GDD Study Section, National Institutes of Health, DC, **2009**.
17. Co-Organizer *Boston University First Annual Translational Research Symposium*, Boston, MA, **2010**.
18. Moderator, *Boston University Technology Entrepreneurship Night*, Boston, MA, **2010**.

Scientific Workshops and Symposia:

1. NSF Materials Workshop III, San Jose, CA, **1995**.
2. NSF Materials Workshop V, Pasadena, CA, **1997**.
3. JDFI/NASA Islet Cell Transplantation Workshop, Washington, DC, **1997**.
4. NSF Inorganometallic Workshop, Knoxville, TN, **1998**.
5. 1st Annual Novartis Science Symposium, Greensboro, NC, **1999**.
6. U.S. National Academy of Sciences, Japanese-American Frontiers of Science, Irvine, CA **2000**.
7. NSF Materials Workshop VIII, Portland, OR, **2000**.
8. Surgical Applications of Tissue Sealants, Chicago, IL **2000**.
9. 24th Asilomar Conference on Polymeric Materials, Pacific Grove, CA, **2001**.
10. Workshop on Nanoscience for the Soldier, Research Triangle Park, NC, **2001**.
11. Workshop on Nanobiotechnology for the Soldier, Research Triangle Park, NC, **2002**.
12. JST/NAS International Interdisciplinary Research Exchange Symposium, Tokyo, Japan **2002**.

13. Nanoscale Sensing: Why and How, ACS Meeting, New Orleans, LA, **2003**.
14. VIIth American German Polymer Symposium, Bayreuth, Germany, **2003**.
15. DNA Supramolecular Assemblies Workshop, Avignon, France, **2004**.
16. ACS Symposium on Functional Polymers and Dendrimers-From Synthesis to Applications, Philadelphia, PA, **2004**.
17. Glaucoma Foundation Think Tank Meeting, New York, NY, **2005**.
18. Fourth International Dendrimer Symposium, Mount Pleasant, MI, **2005**.
19. Symposium on Novel Carriers for Drug and Gene Delivery, IEEE Conference, NY, **2006**.
20. DNA Supramolecular Assemblies II Workshop, Bordeaux, France, **2006**.
21. Nanotechnology Group, Organizing Committee Member, FL, **2007**
22. Boston University First Annual Translational Research Symposium, Boston, MA, **2010**.

Society Memberships:

1. Alpha Chi Sigma (1985 -)
2. American Chemical Society (1985 -)
3. Phi Lambda Upsilon (1989 -)
4. Materials Research Society (2001 -)
5. Society for Biomaterials (2001 -)

NonProfit Scientific Advisory Boards:

1. Network of Excellence in Functional Biomaterials (NFB), Science Foundation of Ireland (2009 – 2014)

Companies Founded and Translational Activities:

1. HyperBranch Medical Technology Inc. **2003**.
2. Affinergy Inc. **2003**.
3. Flex Biomedical Inc. **2008**.