

KENT KIRSHENBAUM

Professor, Department of Chemistry
New York University
New York, NY 10003-6688
kent@nyu.edu (212) 998-8486

EDUCATION

Ph.D., Pharmaceutical Chemistry 1999
University of California, San Francisco

B.A., Chemistry 1994
Reed College, Portland, Oregon

PROFESSIONAL EXPERIENCE

Professor 2014-present
Associate Professor 2008-2014
Assistant Professor 2002-2008
New York University, Department of Chemistry
appointed to faculty of Sackler Institute of Biomedical Sciences, NYU School of Medicine, 2008
appointed to NYU Cancer Institute, NYU School of Medicine, 2011

Visiting Associate Professor 2010-2012
Univ. of California, San Francisco
Dept. of Bioengineering & Therapeutic Sciences

Postdoctoral Fellow 1999-2002
California Institute of Technology
Division of Chemistry and Chemical Engineering (with Prof. David Tirrell)

Visiting Scientist 1995-1999
Chiron Corporation, Emeryville, CA
Bioorganic Chemistry Group (with Dr. Ronald Zuckermann)

Graduate Research Assistant 1994-1999
University of California, San Francisco
Department of Pharmaceutical Chemistry (with Prof. Ken Dill)

ACADEMIC HONORS AND AWARDS

- New York City Bio-Accelerate Competition 2016
- Golden Dozen Award for Teaching (NYU) 2011
- National Science Foundation CAREER Award 2007-2012
- Alzheimer's Association New Investigator 2005-2007
- James D. Watson Investigator Award (NYSTAR) 2004-2006
- N.R.S.A. Postdoctoral Fellowship (NIH) 2000-2002
- Frank Goyan Award in Physical Chemistry (UCSF) 1998
- Training Grant in Pharmaceutical Sciences (UCSF) 1995-1998
- University of California Regents Fellowship (UCSF) 1994-1995

COURSES TAUGHT

- **Bioorganic Chemistry G25.2884**
Spring semesters 2003-2005, 2007, 2008 (with P. Arora)
- **Honors Organic Chemistry Lab V25.0352**
Spring semesters 2003-2005, 2007, 2008 (with P. Arora)
- **Molecular Biochemistry G25.1883**
Fall semesters 2003-2011, 2015
- **Experimental Biochemistry, CHEM UA-885**
Fall semesters 2010-2012
- **Graduate Seminar, CHEM GA-3010**
Fall 2012
- **Special Topics in Biochemistry: Sequence-Controlled Polymers, CHEM GA-2261**
Spring 2014
- **Biochemistry 1, CHEM UA-881**
Spring 2015
- Additional lectures given in **The Contemporary Chemist**, 2003-2006
- Tutorial course instructor, **Experimental Cuisine**, Gallatin School, Fall 2007

RESEARCH SUPERVISION

- Prof. Adam Profit, York College, sabbatical research
- Dr. Elizabeth Anderson, post-doc
- Dr. Galia Maayan, post-doc (co-advised with Prof. Mike Ward)
- Dr. Arjel Bautista, post-doc
- Dr. Chathurika Dehigaspitiya, post-doc
- Dr. Ran Drori, post-doc (co-advised with Profs. Mike Ward and Bart Kahr)
- Dr. Amanda Kasper, post-doc
- Dr. Hangjun Jang, M.D., Ph.D. student, Chemistry (Ph.D. awarded 2007)
- Barney Yoo, Ph.D. student, Chemistry (Ph.D. awarded 2008)
- Sung Bin Shin, Ph.D. student, Chemistry (M.S. in Biology awarded 2004, Ph.D. awarded 2008)
- Yeliz Utku, Ph.D. student, Chemistry (Ph.D. awarded 2009)
- Justin Holub, Ph.D. student, Chemistry (Ph.D. awarded 2009)
- Peter Jordan, Ph.D. student, Chemistry (transferred to Yale University, Dept. of Chemistry)
- Nancy Hom, Ph.D. student, Chemistry (Ph.D. awarded 2011)
- Bishwajit Paul, Ph.D. student, Chemistry (Ph.D. awarded 2012)
- Mia Huang, Ph.D. student, Chemistry (M.S. in Biology awarded 2008, PhD. Awarded 2012)
- Paul Levine, Ph.D. student, Chemistry (Ph.D. Awarded 2014)
- Tim Craven, Ph.D. student, Biology (co-advised with Prof. Richard Bonneau)
- Danielle Nalband, Ph.D. student, Chemistry
- Sidonie Vollrath, visiting Ph.D. student, Karlsruhe Institute of Technology
- Jonas Laursen, visiting Ph.D. student, Technical University of Denmark, Copenhagen
- Jens Engel-Andreasen, visiting Ph.D. student, Technical University of Denmark, Copenhagen

- Katharina Peschko, visiting Ph.D. student, Karlsruhe Institute of Technology
- Rushna Quddus, M.S. student, Chemistry
- Keren Imberg, M.S. student, Biology (M.S. degree awarded 2007)
- Li-Kai Liu, M.S. student, Biology (M.S. degree awarded 2009)
- Justin Leh, M.S. student, Chemistry (M.S. degree awarded 2014)
- Sabrine Obbad, M.S. student, Chemistry (M.S. degree awarded 2015)
- Joost Lamain, visiting M.S. student, Eindhoven University, Netherlands
- Aaron Fafarman, research assistant
- Mallika Tatikola, undergraduate student, Chemistry
- Michael Haugbro, undergraduate student, Chemistry
- Peter Smith, undergraduate student, Chemistry
- Haley Smith, undergraduate student, NYU-Abu Dhabi, Chemistry
- Emily Stein, undergraduate student, Chemistry
- Abhinav Rohatgi, undergraduate student, Chemistry
- Neel Shah, undergraduate student, Chemistry
- Katy Wong, undergraduate student, Chemistry
- Shareen Farooqi, undergraduate student, Chemistry
- Antonio Ramos, undergraduate student, Chemistry
- Tracey Spencer, undergraduate student, Chemistry
- Charles Kaczarek, undergraduate student, Chemistry
- Kaitlyn Goalen, undergraduate student, Gallatin School, NYU
- Torben Heise, visiting undergraduate, Univ. of Nijmegen, Netherlands
- Marcus Hoop, undergraduate student, REU program, Jacobs Univ., Bremen, Germany
- Stephanie London, undergraduate student, REU program, Brown University
- Omayma Kishk, undergraduate student, REU program, Univ. of Mississippi, Oxford
- Anatte Kormendi, undergraduate student, Bennington College
- Ani Kicheva, undergraduate student, Bennington College
- Ryan Johnson, undergraduate student, Bennington College
- Hoi Wai Chau, ACS Project Seed high school student
- Sarah Marmon, high school student
- Brian Groudan, high school student

GRANT SUPPORT

Current:

- Co-Investigator, NIH RO1 “Optimal RNA-Based Therapeutics for Vocal Fold Injury and Fibrosis”; P.I.: Dr. Ryan Branski, NYU School of Medicine; \$1,250,000; 2014-2019
- Co-Investigator, DARPA, solicited program on DSO Folded Non-Natural Polymers with Biological Function, # NC-14-13-PA-001 "A Synthetic Immune System Based on Peptoid NanoSwatches", P.I: Dr. R. Zuckermman, Lawrence Berkeley Lab; \$4,000,000; 2014-2018
- Co-P.I., DOD CDMRP Prostate Cancer Research Program, Synergistic Idea Development Award #PC130598 “Multivalent Peptidomimetic Conjugates as Inhibitors of Androgen Receptor Function in Therapy-Resistant Prostate Cancer”; co-P.I.s Dr. M. Garabedian, NYU School of Medicine, Dr. Kendall Nettles, The Scripps Research Institute; \$750,000 direct costs; 2014-2017

- P.I., National Science Foundation (1507946) “ABR: Functional Biomimetic Architectures”; \$569,000; 2015-2018

Completed:

- P.I., National Science Foundation Award (#1152317) “Functional Biomimetic Architectures”; \$390,000; 2012-2015
- Co-P.I., NYU Applied Research Support Fund “Multivalent Peptidomimetic Conjugates as Therapeutics for Resistant Prostate Cancer”; co-P.I.: Dr. M. Garabedian, NYU School of Medicine; \$75,000; 2013-2014
- Co-Investigator, N.I.H. #1S10OD010582-01A1 “Acquisition of an Orbitrap Elite Mass Spectrometer with ETD”; P.I.: B. Ueberheide, NYU School of Medicine; \$600,000; 2013-2014
- Co-P.I., NYU Provost’s Seed Grant Award “NYU Center for Fundamental Culinary Science”; with co-P.I. Dr. Paul Chaikin; \$50,000; 2013-2014
- Co-P.I., National Institutes of Health, National Center for Advancement of Translational Science, NYU Clinical and Translational Science Institute Award (#UL1 TR000038) “Multivalent Peptidomimetic Conjugates as Inhibitors of Androgen Receptor Function and Prostate Cancer Growth”; with co-P.I. Dr. M. Garabedian, NYU School of Medicine; \$50,000; 2012-2013
- Co-Investigator, N.I.H. RO1 #AG031221 “Targeting the ApoE/A-beta Interaction as a Novel Alzheimer’s Disease Therapy”; P.I.: Dr. M. Sadowski, NYU School of Medicine; 2008-2013
- P.I., National Science Foundation CAREER Award (#0645361) “CAREER: Elaborate Biomimetic Architectures”; \$590,000 (includes \$15,000 outreach supplement); 2007-2012
- Co-P.I., NYU/NYU-Poly Seed Grant; “Designer Coats for Protein Assemblies”; with co-P.I. Jin Montclare, NYU-Poly; \$80,000; 2010-2012
- P.I., Department of Energy Facilities Use Award, Molecular Foundry, Lawrence Berkeley Laboratories “Characterization of Biomolecular Nanostructured Complexes of Peptoid Derivatives and RNA Oligonucleotides”; 2006-2007, renewed 2008-2009
- P.I.: NYSTAR James D. Watson Investigator Award “Peptidomimetics for Medical Imaging Applications”; \$200,000; 2004-2006
- P.I., Alzheimer’s Association New Investigator Award “Peptide Mimetic Imaging Agents for Diagnosis of Alzheimer’s Disease”; \$100,000; 2005-2007

Grant Support for Science Outreach Programs:

- Senior Participant, NSF Research Experiences for Undergraduates “NYU-CCNY REU for the Science and Engineering of Soft Materials and Interfaces (SESMI)” P.I.: Prof. Ward, NYU Chemistry; co-P.I. Prof. Couzis, CCNY; \$306,000; 2007-2010

- Co-P.I., NYU Research Challenge Fund, “Experimental Gastronomy: The Kitchen as an Intersection of Research in the Science and Humanities”; Co-P.I.: Prof. Bentley, NYU Dept. of Food Studies, Nutrition, and Public Health; \$14,286; 2007-2009
- Co-P.I., NYU Humanities Council, Working Research Group Award, “Experimental Cuisine: The Kitchen as an Intersection of Science and the Humanities”; Co-P.I.: Prof. Bentley, NYU Dept. of Food Studies, Nutrition, and Public Health; \$10,000; 2007-2009

COMMITTEE AND PROFESSIONAL SERVICE

- New York University, Faculty Senate Council, alternate, 2011-2013
- New York University, Board of Trustees, presentation on Chemistry research, Nov. 2013
- Faculty of Arts & Science, Standing Committee on Student Discipline, 2015-current
- Faculty of Arts & Science, Foundations of Scientific Inquiry Steering Committee 2011-2016
- Faculty of Arts & Science Committee on Undergraduate Curriculum, 2006-2009
- Faculty of Arts & Science Committee on Women in Natural Sciences, 2006
- Faculty of Arts & Science Committee on Teaching, 2005
- Chemistry Department Director of Graduate Studies, 2014-ongoing
- Chemistry Department Committee on Laboratory Construction, 2011-12, 2012-13
- Chemistry Department Graduate Student Admissions Committee, 2002-2012
- Chemistry Department Graduate Student Recruitment Committee, 2002-2006
- Chemistry Department Colloquium Committee, 2002-2014
- Chemistry Department Faculty Hiring Committees, 2004-2005, 2008-2009, 2011-2014
- Chemistry Department Tenure Committees, 2008, 2015
- Chemistry Department Graduate Student Awards Committee
- Dissertation Committee, Dept. of Chemistry, Columbia University, 2006
- Dissertation Committee, Dept. of Chemistry, SUNY Stony Brook, 2008
- Dissertation Committee, Dept. of Chemistry, IISER Pune, India, 2016
- N.I.H. grant reviewer, *ad hoc* member SBCB study section, June, 2007, 2014
- N.S.F. grant review panel member, Biomaterials Program, February, 2008
- N.S.F. grant review panel member, Chemistry of Life Processes, March, 2014
- Alzheimer’s Association, grant reviewer, 2006-2007
- Netherlands Organization for Scientific Research, grant reviewer, 2012
- Co-organizer, 1st U.S. Workshop on Foldamers, NYU, June 2014
- Co-organizer, 2nd U.S. Workshop on Foldamers, NYU, June 2016
- Co-organizer, 9th Peptoid Summit, Lawrence Berkeley Laboratory, August 2015
- New York Academy of Sciences, Chemical Biology Discussion Group, session co-organizer for “Foldamers and their Uses in Chemical Biology”, April, 2007
- Mid-Atlantic Regional Meeting of the American Chemical Society, organizing chair, session on Biomimetic Catalysis, Queens, NY, May 2008
- Liberty Science Center advisory council, 2009-2010
- Hunter College High School, career day presentation, 2013, 2014
- National Chemistry Week science outreach, NY Hall of Science, Queens, NY, 2006 and 2008
- Experimental Cuisine Collective, founding member, 2007-current
- Member, Faculty of 1000, Chemical Biology Section, 2013-current
- Invited manuscript editor, *Proceedings of the National Academy of Sciences U.S.A.*, 2011
- Editor, special issue of *Biopolymers Peptide Science* devoted to peptoids, 2011
- Editorial Board, *Protein Engineering Design and Selection*, 2014-current

JOURNAL REFEREE ACTIVITY

ACS Combinatorial Science; ACS Medicinal Chemistry Letters; Advanced Functional Materials; Amino Acids; Angewandte Chemie; Biochemistry; Bioconjugate Chemistry; Bioinformatics; Biomacromolecules; Biomaterials; Bioorganic & Medicinal Chemistry; Biopolymers; ChemBioChem; Chemical Communications; Chemical Science; Chemistry & Biology; Chemistry – A European Journal; Chemistry – An Asian Journal; Chemistry of Materials; European Journal of Organic Chemistry; FEBS Letters; International Journal of Gastronomy and Food Science; Journal of Biological Inorganic Chemistry; Journal of Combinatorial Chemistry; Journal of Controlled Release; Journal of Materials Chemistry; Journal of Molecular Biology; Journal of Pharmacy and Pharmacology; Journal of the American Chemical Society; Journal of Organic Chemistry; Journal of Physical Chemistry; Journal of Visualized Experiments; Macromolecular Rapid Communications; Macromolecules; Molecular BioSystems; Molecular Pharmaceutics; Molecules; Nano Letters; Nature Chemistry; Nature Communications; Nature Nanotechnology; Nature Protocols; Organic and Biomolecular Chemistry; Organic Letters; Peptide Science; PLoS ONE; Proceedings of the National Academy of Sciences, USA; QSAR & Combinatorial Science; Small; Synlett; Tetrahedron Letters

THESES

B.A., Reed College, *Molecular Dynamics Simulations of Amyloid β -Peptide*, 1994

Ph.D., U.C.S.F., *Design and Characterization of Biomimetic Polymers*, 1999

PUBLICATIONS

- Bowling, H; Bhattacharya, A; Zhang, G; Lebowitz, JZ; Alam, D; Smith, PT; Kirshenbaum, K; Neubert, TA; Vogel, C; Chao, MV; Klann, E. “BONLAC: A Combinatorial Proteomic Technique to Measure Stimulus-Induced Translational Profiles in Brain Slices” *Neuropharmacology* **2016** 100: 76-89.
- Craven, TW; Cho, MK; Traaseth, NJ; Bonneau, R; Kirshenbaum, K. “A Miniature Protein Stabilized by a Cation- π Interaction Network” *J. Am. Chem. Soc.* **2016** 138: 1543-1550.
- Smith, PT; Huang, ML; Kirshenbaum, K. “Osmoprotective Polymer Additives Attenuate the Membrane Pore-forming Activity of Antimicrobial Peptoids” *Biopolymers* **2015** 103: 227-236.
- Zhang, GA; Bowling, H; Hom, N; Kirshenbaum, K; Klann, E; Chao, MV; Neubert, TA “In-Depth Quantitative Proteomic Analysis of de Novo Protein Synthesis Induced by Brain-Derived Neurotrophic Factor” *J. Proteome Res.* **2014** 13: 5707-5714.
- Levine, PM; Garabedian, MJ; Kirshenbaum, K. “Targeting the Androgen Receptor with Steroid Conjugates” *J. Med. Chem.* **2014** 57: 8224-8237.
- Butterfoss, GL; Drew, K; Renfrew, PD; Kirshenbaum, K; Bonneau, R. “Conformational Preferences of Peptide-Peptoid Hybrid Oligomers” *Biopolymers* **2014** 102: 369-378.
- Nalband, DM; Warner, BP; Zahler, NH; Kirshenbaum, K. “Rapid Identification of Metal-Binding Peptoid Oligomers by On-Resin X-Ray Fluorescence Screening” *Biopolymers* **2014** 102: 407-415.

- Renfrew, PD; Craven, TW; Butterfoss, GL; Kirshenbaum, K; Bonneau, R. “A Rotamer Library to Enable Modeling and Design of Peptoid Foldamers” *J. Am. Chem. Soc.* **2014** 136: 8772-8782.
- Levine, PM; Craven, TW; Bonneau, R. Kirshenbaum, K. “Intrinsic Bioconjugation for Site-specific Protein PEGylation at N-terminal Serine” *Chem. Comm.* **2014** 50: 6909-6912.
- Konca, Y. U.; Kirshenbaum, K.; Zuckermann, R. N. “Nanometer-scale siRNA Carriers Incorporating Peptidomimetic Oligomers: Physical Characterization and Biological Activity” *Int. J. Nanomedicine* **2014** 9: 2271-2284.
- Levine, P. M.; Craven, T. W.; Bonneau, R.; Kirshenbaum, K. “Semisynthesis of Peptoid–Protein Hybrids by Chemical Ligation at Serine” *Org. Lett.* **2014** 16: 512–515.
- Levine, P.M.; Craven, T.W.; Bonneau, R.; Kirshenbaum, K. “Chemoselective Fragment Condensation between Peptide and Peptidomimetic Oligomers” *Org. Biomol. Chem.* **2013** 11: 4142-4146.
- Huang, M.L.; Benson, M.A.; Shin, S.Y.; Torres, V.J.; Kirshenbaum, K. “Amphiphilic Cyclic Peptoids that Exhibit Antimicrobial Activity by Disrupting *Staphylococcus aureus* Membranes” *Eur. J. Org. Chem.* **2013**: 3560-3566.
- Vollrath, S.B.L.; Hu, C.; Brase, S.; Kirshenbaum, K. “Peptoid Nanotubes: An Oligomer Macrocycle that Reversibly Sequesters Water via Single-crystal-to-single-crystal Transformations” *Chem. Commun.* **2013** 49: 2317-2319.
- Drew, K.; Renfrew, P.D.; Craven, T.W.; Butterfoss, G.L; Chou, F.-C.; Lyskov, S.; Bullock, B.N.; Watkins, A.; Labonte, J.W.; Pacella, M.; Kilambi, K.P.; Leaver-Fay, A.; Kuhlman, B.; Gray, J.J.; Bradley, P.; Kirshenbaum, K.; Arora, P.S.; Das, R.; Bonneau, R. “Adding Diverse Noncanonical Backbones to Rosetta: Enabling Peptidomimetic Design” *PloS One* **2013** 8: e67051.
- Levine, P.M.; Carberry, T.; Holub, J.M.; Kirshenbaum, K. “Crafting Precise Multivalent Architectures” *Med. Chem. Commun.* **2013** 4: 493-509.
- Huang, M.; Ehre, D.; Jiang, Q.; Hu, C.; Kirshenbaum, K.; Ward, M. “Biomimetic Peptoid Oligomers as Dual-action Antifreeze Agents” *Proc. Natl. Acad. Sci. USA*, **2012** 109: 19922-19927.
- Hom, N.; Mehta, K.; Chou, T.; Foraker, A.; Brodsky, F.; Kirshenbaum, K.; Montclare, J. “Anisotropic Nanocrystal Arrays Organized on Protein Lattices Formed by Recombinant Clathrin Fragments” *J. Mater. Chem.* **2012** 22: 23335-23339.
- Butterfoss, G.L.; Yoo, B.; Jaworski, J.N.; Chorny, I.; Dill, K.A.; Zuckermann, R.N.; Bonneau, R.; Kirshenbaum, K.; Voelz, V.A. “De Novo Structure Prediction and Experimental Characterization of Folded Peptoid Oligomers” *Proc. Natl. Acad. Sci. USA* **2012** 109: 14320-14325.
- Levine, P.M.; Lee, E.; Greenfield, A.; Bonneau, R.; Logan, S.K.; Garabedian, M.J.; Kirshenbaum, K. “Androgen Receptor Antagonism by Divalent Ethisterone Conjugates in Castrate-resistant Prostate Cancer Cells” *ACS Chem. Biol.* **2012** 7: 1693-1701.
- Vollrath, S. B. L.; Brase, S.; Kirshenbaum, K. “Twice Tied Tight: Enforcing Conformational Order in Bicyclic Peptoid Oligomers” *Chem. Sci.* **2012** 3: 2726-2731.

- Levine, P. M.; Imberg, K.; Garabedian, M. J.; Kirshenbaum, K. "Multivalent Peptidomimetic Conjugates: A Versatile Platform for Modulating Androgen Receptor Activity" *J. Am. Chem. Soc.* **2012** 134: 6912-6915.
- Paul, B.; Butterfoss, G. L.; Boswell, M. G.; Huang, M. L.; Bonneau, R.; Wolf, C.; Kirshenbaum, K. "*N*-Naphthyl Peptoid Foldamers Exhibiting Atropisomerism" *Org. Lett.* **2012** 14: 926-929.
- Huang, M. L.; Shin, S. B. Y.; Benson, M. A.; Torres, V. J.; Kirshenbaum, K. "A Comparison of Linear and Cyclic Peptoid Oligomers as Potent Antimicrobial Agents" *ChemMedChem* **2012** 7: 114-122.
- Johnson, A.; Kirshenbaum, K.; McBride, A. E. "Designing a Sustainable and Stretchable 'Fox Testicle' Ice Cream", invited chapter in *The Kitchen as Laboratory*; editors: Vega, C.; Ubbink, J.; van der Linden, E.; Columbia University Press, New York, **2012**.
- Jordan, P. A.; Paul, B.; Butterfoss, G. L.; Renfrew, P. D.; Bonneau, R.; Kirshenbaum, K. "Oligo(*N*-alkoxy glycines): *Trans* Substantiating Peptoid Conformations" *Biopolymers Pept. Sci.* **2011** 96: 617-626.
- Paul, B.; Butterfoss, G. L.; Boswell, M. G.; Renfrew, P. D.; Yeung, F. G.; Shah, N. H.; Wolf, C.; Bonneau, R.; Kirshenbaum, K. "Peptoid Atropisomers" *J. Am. Chem. Soc.* **2011** 133: 10910-10919.
- Pohl, N. L. B.; Kirshenbaum, K.; Yoo, B.; Schulz, N.; Zea, C. J.; Streff, J. M.; Schwarz, K. L. "Student-driven Design of Peptide Mimetics: Microwave-assisted Synthesis of Peptoid Oligomers" *J. Chem. Ed.* **2011** 88: 999-1001.
- Holub, J. M.; Garabedian, M. J.; Kirshenbaum, K. "Modulation of Human Estrogen Receptor α Activity by Multivalent Estradiol-peptidomimetic Conjugates" *Mol. BioSyst.* **2011** 7: 337-345.
- Yoo, B.; Shin, S. B. Y.; Huang, M. L.; Kirshenbaum, K. "Peptoid Macrocycles: Making the Rounds with Peptidomimetic Oligomers" *Chem. Eur. J.* **2010** 16: 5528-5537.
- Holub, J. M.; Kirshenbaum, K. "Tricks with Clicks: Modification of Peptidomimetic Oligomers via Copper-catalyzed Azide-alkyne [3+2] Cycloaddition" *Chem. Soc. Rev.* **2010** 39: 1325-1337.
- Utku, Y.; Rohatgi, A.; Yoo, B.; Zuckermann, R.; Pohl, N.; Kirshenbaum, K. "Rapid Multistep Synthesis of a Bioactive Peptidomimetic Oligomer for the Undergraduate Lab." *J. Chem. Ed.* **2010** 87: 637-639.
- Butterfoss, G. L.; Renfrew, P. D.; Kuhlman, B.; Kirshenbaum, K.; Bonneau, R. "A Preliminary Survey of the Peptoid Folding Landscape" *J. Am. Chem. Soc.* **2009** 131: 16798- 16807.
- Maayan, G. Ward, M.; Kirshenbaum, K. "Folded Biomimetic Oligomers for Enantioselective Catalysis" *Proc. Natl. Acad. Sci. USA* **2009** 106: 13679-13684.
- Jagasia, R.; Holub, J. M.; Bollinger, M.; Kirshenbaum, K.; Finn, M.G. "Peptide Cyclization and Cyclodimerization by CuI-Mediated Azide-Alkyne Cycloaddition" *J. Org. Chem.*, **2009** 74: 2964-2974.
- Maayan, G.; Ward, M.; Kirshenbaum, K. "Metallopeptoids" *Chem. Commun.* **2009** 56-58.

- Carrico, I. S.; Kirshenbaum, K. "Nanoparticles: Designer Labels for Virus Coats" (News and Views) *Nature Nanotech.* **2009** 4:14-15.
- Yoo, B.; Kirshenbaum, K. "Peptoid Architectures: Elaboration, Actuation, and Application" *Curr. Opin. Chem. Biol.*, **2008** 12: 714-721.
- Shah, N. H.; Butterfoss, G. L.; Nguyen, K.; Yoo, B.; Bonneau, R.; Rabenstein, D. L.; Kirshenbaum, K. "Oligo(N-aryl glycines): A New Twist on Structured Peptoids" *J. Am. Chem. Soc.*, **2008** 130: 16622-16632.
- Kirshenbaum, K.; Arora, P.S. "Cross-Dressing Proteins by Olefin Metathesis" (News & Views) *Nature Chem. Biol.*, **2008** 9: 527-528.
- Shah, N.H.; Kirshenbaum, K. "Direct Generation of Polymer Films on Copper Surfaces Through Azide-Alkyne Cycloaddition Reactions Between Peptidomimetic Oligomers" *Macromol. Rapid Commun.*, **2008** 29: 1134-1139.
- Shah, N.H.; Kirshenbaum, K. "Photoresponsive Peptoid Oligomers Bearing Azobenzene Side Chains" *Org. Biomol. Chem.*, **2008** 6: 2516-2521.
- Maayan, G.; Yoo, B.; Kirshenbaum, K. "Heterocyclic Amines for the Construction of Peptoid Oligomers Bearing Multi-Dentate Ligands" *Tet. Lett.*, **2008** 49: 335-338.
- Kirshenbaum, K.; Arora, P. S. "Cross-dressing Proteins by Olefin Metathesis" (News and Views) *Nat. Chem. Biol.*, **2008** 4: 527-528.
- Shin, S.-B.Y.; Kirshenbaum, K. "Conformational Rearrangements by Water-Soluble Peptoid Foldamers" *Org. Lett.*, **2007** 9: 5003-5006.
- Holub, J. M.; Garabedian, M. J.; Kirshenbaum, K. "Peptoids on Steroids: Precise Multivalent Estradiol-Peptidomimetic Conjugates Generated via Azide-Alkyne [3+2] Cycloaddition Reactions" *QSAR & Comb. Sci.*, **2007** 26: 1175-1180.
- Shin, S.-B.Y., Yoo, B., Todaro, L., Kirshenbaum, K. "Cyclic Peptoids" *J. Am. Chem. Soc.*, **2007** 129: 3218-3225.
- Holub, J.M., Jang, H., Kirshenbaum, K. "Fit To Be Tied: Conformation-Directed Macrocyclization of Peptoid Foldamers" *Org. Lett.* **2007** 9: 3275-3278.
- Fafarman, A.T., Borbat, P.P., Freed, J.H., Kirshenbaum, K. "Characterizing the Structure and Dynamics of Folded Oligomers: Pulsed ESR Studies of Peptoid Helices" *Chem. Commun.* **2007** 2: 377-379.
- Utku, Y., Dehan, E., Ouerfelli, O., Piano, F., Zuckermann, R.N., Pagano, M., Kirshenbaum, K. "A peptidomimetic siRNA Transfection Reagent for Highly Effective Gene Silencing" *Mol. BioSystems.* **2006** 2: 312-317.
- Spencer, T., Yoo, B., Kirshenbaum, K. "Purification and Modification of Fullerene C₆₀ in the Undergraduate Laboratory" *J. Chem. Ed.* **2006** 83: 1218-1220.
- Anderson, E.A., Isaacman, S., Peabody, D.S., Wang, E.Y., Canary, J.W., Kirshenbaum, K. "Viral Nanoparticles Donning a Paramagnetic Coat: Conjugation of MRI Contrast Agents to the MS2 Capsid" *NanoLetters* **2006** 6: 1160-1164.

- Holub, J.M., Jang, H., Kirshenbaum, K. "Clickity-Click: Highly Functionalized Peptoid Oligomers Generated by Sequential Conjugation Reactions on Solid-Phase Support" *Org. Biomol. Chem.* **2006** 4: 1497-1502.
- Huang, K., Wu, C.W., Sanborn, T.J., Patch, J.A., Kirshenbaum, K., Zuckermann, R.N., Barron, A.E., Radhakrishnan, I. "A Threaded Loop Conformation Adopted by a Family of Peptoid Nonamers" *J. Am. Chem. Soc.* **2006** 128: 1733-1738.
- Yoo, B., Kirshenbaum, K. "Protease-Mediated Ligation of Abiotic Oligomers" *J. Am. Chem. Soc.* **2005** 127: 17132-17133.
- Jang, H., Fafarman, A., Kirshenbaum, K. "Click to Fit: Versatile Polyvalent Display on a Peptidomimetic Scaffold" *Org. Lett.* **2005** 7: 1951-1954.
- Patch, J.A., Kirshenbaum, K., Seurnynck, S.L., Zuckermann, R.N., Barron, A.E. "Versatile Oligo(*N*-substituted) Glycines: The Many Roles of Peptoids in Drug Discovery" invited chapter in *Pseudo-peptides in Drug Development*; Nielsen, P.E., Ed.; Wiley-VCH, Weinheim, Germany, **2004**, 1-31.
- Arora, P.S., Kirshenbaum, K. "Nano-Tailoring: Stitching Alterations on Viral Coats" (Preview) *Chem. Biol.* **2004** 11, 418-420.

Publications Prior to NYU:

- Wu, C.W., Kirshenbaum, K., Sanborn, T.J., Patch, J.A., Huang, K., Dill, K.A., Zuckermann, R.N., Barron, A.E. "Structural and Spectroscopic Studies of Peptoid Oligomers with α -Chiral Aliphatic Side Chains" *J. Am. Chem. Soc.* **2003** 125, 13525-13530.
- Kwon, I., Kirshenbaum, K., Tirrell, D.A. "Breaking the Degeneracy of the Genetic Code" *J. Am. Chem. Soc.* **2003** 125, 7512-7513.
- Kirshenbaum, K., Carrico, I.S., Tirrell, D.A. "Biosynthesis of Proteins Incorporating a Versatile Set of Phenylalanine Analogs" *ChemBioChem*, **2002** 3, 235-237.
- Kirshenbaum, K., Zuckermann, R., Dill, K.A. "Designing Polymers that Mimic Biomolecules" *Curr. Opin. Struct. Biol.* **1999** 9, 530-535.
- Kirshenbaum, K., Young, M., Highsmith, S. "Predicting Allosteric Switches in Myosins" *Protein Sci.* **1999** 8, 1806-1815.
- Young, M., Kirshenbaum, K., Dill, K.A., Highsmith S. "Predicting Conformational Switches in Proteins" *Protein Sci.* **1999** 8, 1752-1764.
- Kirshenbaum, K., Barron, A.E., Goldsmith, R.A., Armand, P., Bradley, E.K., Truong, K.T.V., Dill, K.A., Cohen, F.E., Zuckermann, R.N. "Sequence-Specific Polypeptoids: A Diverse Family of Heteropolymers with Stable Secondary Structure" *Proc. Natl. Acad. Sci. USA* **1998** 95, 4303-4308.
- Armand, P., Kirshenbaum, K., Goldsmith, R.A., Farr-Jones, S., Barron, A.E., Truong, K.T.V., Dill, K.A., Mierke, D.F., Cohen, F.E., Zuckermann, R.N., Bradley, E.K. "NMR Determination

of the Major Solution Conformation of a Peptoid Pentamer with Chiral Side Chains” *Proc. Natl. Acad. Sci. USA* **1998** 95, 4309-4314.

- Armand, P., Kirshenbaum, K., Falicov, A., Dunbrack, R.L., Dill, K.A., Zuckermann, R.N., Cohen, F.E. “Chiral *N*-Substituted Glycines Can Form Stable Helical Conformations” *Folding & Design* **1997** 2, 369-375.
- Kirshenbaum, K., Daggett, V. “pH-Dependent Conformations of the Amyloid β (1-28) Peptide Fragment Explored Using Molecular Dynamics” *Biochemistry* **1995** 34, 7629-7639.
- Kirshenbaum, K., Daggett, V. “Sequence Effects on Conformational Properties of the Amyloid β (1-28) Peptide: Testing a Proposed Mechanism for the $\alpha \rightarrow \beta$ Transition” *Biochemistry* **1995** 34, 7640-7647.
- Kirshenbaum, K., Papp, S., Highsmith, S. “Cross-linking Myosin Subfragment 1 Cys-697 and Cys-707 Modifies ATP and Actin Binding Site Interactions” *Biophys. J.* **1993** 65, 1121-1129.

INVITED TALKS

- New York Section, American Chemical Society, High School Teachers Topical Group, New York, NY, Mar. 2016
- National Science Foundation, CAREER Proposal Writing Workshop, Arlington, VA, Mar. 2016
- University of California, Los Angeles, Science & Food Public Lecture Series, Division of Life Sciences and Department of Integrative Biology & Physiology, Los Angeles, CA, Mar. 2016
- University of Nevada, Reno, Dept. of Chemistry Seminar Series, Feb. 2016
- New York University Abu Dhabi International Chemistry Conference on Organic & Bioorganic Chemistry, Abu Dhabi, United Arab Emirates, Feb. 2016
- 7th Peptide Engineering Meeting, IISER, Pune, India, Dec. 2015
- BioAccelerate Award Finalists Presentations, Partnership Fund for New York City, RBC Capital Markets, New York, NY, Nov. 2015
- New York Academy of Medicine, Eating Through Time Festival, New York, NY, Oct. 2015
- Laufer Center for Physical and Quantitative Biology, Seminar Series, State University of New York, Stony Brook, Sep. 2015
- Co-organizer, presiding chair and invited speaker, 9th Peptoid Summit, Lawrence Berkeley National Laboratory, Berkeley, CA, Aug. 2015
- World Science Festival, Scientific Kitchen Series, New York, NY, May 2015

- Center for the Advancement of Teaching Faculty Development Program, “Teaching at the Tap Room” series, NYU Torch Club, Apr. 2015
- New York Nanoscience Discussion Group Lecture Series, New York, NY, Apr. 2015
- NYU/TAU Conference on Frontiers in Polymer and Biomolecular Chemistry, Tel Aviv University, Israel, Mar. 2015
- Langone School of Medicine, New York University, Technion/NYU joint symposium in Cancer Research, Sep. 2014
- Syracuse University, Dept. of Chemistry colloquium series, Syracuse, NY, Oct. 2014
- ACS National meeting, symposium on Poly(2-Oxazoline)s and Polypeptoids, San Francisco, CA, Aug. 2014
- 1st Foldamers Workshop, New York University, New York, June 2014 (co-organizer)
- World Science Festival, “Scientific Kitchen” sessions, presentation/demonstration, New York, NY, May 2014
- ACS National meeting, symposium on Nanomedicines, Dallas, TX, Mar. 2014
- ACS National meeting, symposium on Recent Advances in Peptoid Chemistry, Dallas, TX, Mar. 2014
- Reed College, chemistry seminar series, Dept. of Chemistry, Portland, OR, Dec. 2013
- New York University, chemistry seminar series, Dept. of Chemistry, NY, NY, Oct. 2013
- University of Maryland, organic seminar series, Dept. of Chemistry & Biochemistry, College Park, MD, Sep. 2013
- St. John’s University, seminar series, Dept. of Chemistry, Queens, NY, July 2013
- Toronto International Film Festival, presentation/demonstration, Food on Film series, Toronto, Canada, June 2013
- Gordon Research Conference on Chemical Education Research & Practice, closing speaker, Salve Regina University, Newport RI, June 2013
- California Institute of Technology, symposium in honor of David Tirrell’s 60th birthday, Pasadena, CA, June 2013
- World Science Festival, presentation/demonstration, The Taste of Science event, New York, NY, May 2013

- Paris Symposium on Foldamers, keynote speaker, Les Cordeliers, Paris, France, Apr. 2013
- American Chemical Society National Meeting, symposium on “Bottom-Up Design of the Next Generation of Biomaterials”, New Orleans, LA, Apr. 2013
- Materials Research Society National Meeting, symposium on “Hybrid Inorganic-Biological Materials”, San Francisco, CA, Apr. 2013
- The College of New Jersey, Dept. of Chemistry, colloquium series, Mar. 2013
- University of Indiana, ACS Chemistry of Everyday Life Seminar Series, Bloomington, IN, Mar. 2013
- University of Arkansas, College of Engineering, Distinguished Lecture Series, Fayetteville, AR, Feb. 2013
- University of South Florida, Dept. of Chemistry, departmental seminar series, Tampa, FL, Feb. 2013
- The Scripps Research Institute, Scripps Florida, graduate program in Chemistry, Distinguished Lecture Series, Jupiter, FL, Feb. 2013
- SRI International, Palo Alto, CA, Feb. 2013
- American Chemical Society, Long Island chapter seminar series, Nassau Community College, NY, Dec. 2012
- University of California San Francisco, keynote speaker, Pharmaceutical Sciences and Pharmacogenomics Annual Retreat, Marshall, CA, Oct. 2012
- Prostate Cancer Foundation, Scientific Retreat, Carlsbad, CA, Oct. 2012
- Presiding chair and invited speaker, 8th Peptoid Summit, Lawrence Berkeley National Laboratory, Berkeley CA, Aug. 2012
- University of Pittsburgh, Tripartite Symposium, May 2012
- Temple University, Chemistry Department seminar series, Philadelphia, PA, April, 2012
- Gordon Conference on Chemistry & Biology of Peptides, Ventura, CA, Feb. 2012
- University of the West Indies, Department of Chemistry, Mona, Jamaica, Dec. 2011
- Univ. of Auckland, Dept. of Chemistry, New Zealand, Aug. 2011
- Univ. of Waikato, Dept. of Chemistry, Hamilton, NZ, Aug. 2011

- Wellington on a Plate Festival (two presentations), Wellington, NZ, Aug. 2011
- Victoria University, Chemistry Dept. Seminar series, Wellington, NZ Aug. 2011
- Motel Bar, Wellington, NZ, Aug. 2011
- Massey University, Palmerston North, NZ, Aug. 2011
- Ruth Pretty Cooking School, Otaki, NZ, Aug. 2011
- Christchurch Polytechnic Institute of Technology, Christchurch, NZ, Aug. 2011
- BrisScience Lecture Series, Customs House, Brisbane, Australia, Aug. 2011
- American Chemical Society, Webinar Series (global audience ~800), June 2011
- Mid-Atlantic Regional Meeting of the American Chemical Society, session on Advances in Organic Synthesis, Univ. of Maryland, College Park, MD, May 2011
- City College of New York, Chemistry Department seminar series, New York, NY, Apr. 2011
- American Association for the Advancement of Science, National Meeting, invited speaker, Washington, D.C., Feb. 2011
- Universite de Montreal, Chemistry Department seminar series, Montreal, QC, Feb. 2011
- Presiding chair and invited speaker, 7th Peptoid Summit, Lawrence Berkeley Laboratory, Berkeley CA, Aug. 2010
- Plenary address, 21st Biennial Conference in Chemical Education, Denton, TX, Aug. 2010
- Stanford University, Department of Materials Science & Engineering seminar series, Stanford, CA, 2010
- Oberlin College, Chemistry Department seminar series, Oberlin, OH, Apr. 2010
- Secret Science Club, The Bell House, Gowanus, Brooklyn, NY, Mar. 2010
- University of Virginia, Department of Chemical Engineering seminar series, Charlottesville, VA, Jan. 2010
- Tufts University, Department of Chemistry seminar series, Medford, MA, Oct., 2009
- University of Washington, Department of Bioengineering, Seattle, WA, Apr. 2009
- University of the West Indies, Cave Hill campus, Department of Biological & Sciences, Bridgetown, Barbados, Mar. 2009

- University of Pennsylvania, Department of Chemistry seminar series in Biological Chemistry, Feb. 2009
- New York Academy of Sciences, RNAi – A New Class of Biological Therapeutics, New York, NY, Feb. 2009
- University of Delaware, Chemistry-Biology Interface Seminar Series, Newark, DE, Sep. 2008
- Peptoid Summit, Molecular Foundry, Lawrence Berkeley National Laboratory, CA, Aug. 2008
- IDEO Corporation, Give & Take Lecture Series, New York, NY, Mar. 2008
- Genomics: Genomes to Life and Metabolic Engineering Workshop, session on Nanotechnology and Genomics, U.S. Dept. of Energy, Bethesda, Maryland, Feb. 2008
- International Society for Molecular Recognition, 17th Biennial Meeting “Affinity 2007”, New York, NY, July 2007
- IUPAC and ACS Conference on Macromolecules for a Safe, Sustainable and Healthy World, 2nd Strategic Polymer Symposium, Brooklyn, NY, June 2007
- Dept. of Chemical Engineering Seminar Series, California Institute of Technology, Pasadena, CA, May 2007
- Dept. of Chemistry Lecture Series, The Scripps Research Institute, San Diego, CA, May 2007
- Dept. of Chemistry and Biochemistry, Organic Chemistry Seminar Series, Univ. of California, San Diego, May 2007
- Department of Biochemistry and Molecular Pharmacology Seminar Series, Univ. of Massachusetts Medical School, Worcester, MA, Mar. 2007
- Department of Chemistry Seminar Series, State University of New York, Stony Brook, Feb. 2007
- Draper Undergraduate Society, New York University, Feb. 2007
- Department of Molecular Physiology and Biophysics, Mount Sinai School of Medicine, Discussion Series in Molecular Interactions, New York, Dec. 2006
- Department of Chemistry Seminar Series, City College of New York, Nov. 2006
- National Science Foundation Workshop in Physical Organic Chemistry, Lake Arrowhead, CA, Oct. 2006
- New York Nanoscience Discussion Group, New York, NY, Oct. 2006
- The Molecular Foundry, Lawrence Berkeley Laboratory, Sep. 2006
- Institut de Biologie Moléculaire et Cellulaire, Université Louis Pasteur de Strasbourg, France, Mar. 2006

- Institute of Organic Chemistry, University of Zurich, Switzerland, Mar. 2006
- Northwestern University, Evanston, IL, June 2005
- Department of Chemistry Seminar Series, Reed College, Portland, OR, Nov. 2004
- Northeast Regional Meeting of the American Chemical Society, Rochester, NY, Nov. 2004
- Gordon Research Conference on Biopolymers, Salve Regina Univ., Newport, RI, June 2004
- Department of Chemistry Seminar Series, Long Island University, Brooklyn, NY, Oct. 2003
- Department of Chemical & Biological Sciences Colloquium Series, Polytechnic University, Brooklyn, NY, Sep. 2003
- Rolduc Polymer Meeting, "Crossing Lengthscales and Disciplines", Rolduc Abbey, Maastricht, The Netherlands, May 2003
- Department of Chemistry Lecture Series, Fordham University, Bronx, NY, Mar. 2003
- Department of Biochemistry and Microbiology Lecture Series, Rutgers University, New Brunswick, NJ, Jan. 2003
- Conference on Aminoacyl-tRNA Synthetases in Biology, Medicine and Evolution, Pacific Grove, CA, Jan. 2002
- Gordon Research Conference on Biodegradable Polymers, Oxford University, U.K., July 2001.
- Biosystems Research Department Seminar, Sandia National Lab, Livermore, CA, Dec. 2000
- ACS Workshop on Chain Growth Polymerization, Sonoma, CA, Mar. 2000
- Gordon Research Conference on Chemistry and Biology of Peptides, Ventura, CA, Feb. 1998

PATENTS

- Wold, B.J., Murphy, J.F., Davis, M.E., Kirshenbaum, K., Tirrell, D.A. "A Rapid, Quantitative Method for the Mass Spectrometric Analysis of Nucleic acids for Gene Expression and Genotyping" US patent # 6811977.
- Holub, J., Kirshenbaum, K. "Method for Site-Specific Polyvalent Display on Polymers" US patent # 8,524,663.
- Shin, S.B., Kirshenbaum, K. "Peptoid Oligomers, Pharmaceutical Compositions and Methods of Using the Same" US patent # 8,828,413.
- Kirshenbaum, K., Levine, P., Craven, T. "Novel Polymers, Pharmaceutical Compositions and Methods of Synthesizing the Same" US Patent # 20150299254

- Kirshenbaum, K., Yoo, B. “Method for Enzyme-Mediated Coupling of Oligomers” US application pending, US2007/005429.
- Maayan, G., Ward, M., Kirshenbaum, K. “Peptoid Compositions and their Method of Use” US application pending, US2009/0318667
- Sadowski, M.J., Kirshenbaum, K. “Peptoid and Synthetic Oligomers, Pharmaceutical Compositions and Methods of Using Same” US application pending, US2012/0015883.
- Guegan, A., Kirshenbaum, K. “Meringue Composition and Methods of Preparation” application pending, WO Patent 2013/022750
- Kirshenbaum, K., Huang, M.L. “Cyclic Peptoid Oligomers, Pharmaceutical Compositions and Methods of Using the Same” US application pending, US2014/208,235

PRESS REPORTS AND MEDIA APPEARANCES

General

- NBC-Learn K-12 scientist profile in cooperation with the National Science Foundation; Tom Costello. "Origami Chemistry: NYU Chemist Folds Molecules". NBC Learn. NBCUniversal Media, LLC. 09/28/**2011**. <https://archives.nbclearn.com/portal/site/k-12/browse/?cuecard=54793>
- PharmTech, “The Promise of Peptoids”, Cynthia Challener, Apr. 24, **2013**
<http://www.pharmtech.com/pharmtech/The-Promise-of-Peptoids/ArticleStandard/Article/detail/810961>
- Educational Video, Boonsri Dickinson, “Elemental” YouTube series, “Creating Synthetic Molecules to Mimic Nature” Dec. 16, **2013**, <http://www.youtube.com/watch?v=UYIzwiLRpw0>

Related to: Huang *et al.* “Biomimetic peptoid oligomers as dual-action antifreeze agents” *Proc. Natl. Acad. Sci. USA*, **2012** 109: 19922-19927

- Faculty of 1000, Weatherman R, F1000Prime Recommendation, In F1000Prime, 05 Dec **2012**; DOI: 10.3410/f.717964270.793465950
- LiveScience, Research in Action article in partnership with the National Science Foundation “Nature’s Antifreeze May Hold Key to Tissue Preservation” Dec. 20, **2012**
<http://www.livescience.com/25702-biometric-antifreeze-molecule-nsf-ria.html>
- Science Daily, “Hold the Ice: Chemists Reveal Behavior of Antifreeze Molecules” Nov. 19, **2012**, <http://www.sciencedaily.com/releases/2012/11/121119151216.htm>

Related to: Shin *et al.* “Cyclic Peptoids” *J. Am. Chem. Soc.*, **2007** 129, 3218

- Editor’s Choice highlight in *Science*
Phillip Szuromi, "Peptoid Polygons" *Science* **2007** 315, 1467

Related to: Utku *et al.* “A Peptidomimetic siRNA Transfection Reagent for Highly Effective Gene Silencing” *Mol. BioSystems*. **2006** 2, 312

- Cover Story, *Chemical & Engineering News*
Celia Henry Arnaud “Digging Deep to Understand siRNA Delivery Systems” *C&E News*, Nov. 13, **2006**, 84: 20-21
- *Science Daily* “Researchers Developing Molecular Delivery Vehicles For Genetic Therapies” Dec. 10, **2006**
- Susan Gotensparre “Delivery Technology Could Speed up siRNA Development” *DrugResearcher.com*, Dec. **2006**
- *Pharmacogenomics* “Progress Made in the Development of Molecular Delivery Vehicles for Genetic Therapies” Jan. **2007**, Vol. 8, No. 1, 11-13
- others including EurekaAlert, BioResearch Online, Innovations Report, PhysOrg.com, Biotechnolog.net, NYU Today, and Medical News Today

Related to: Anderson *et al.* “Viral Nanoparticles Donning a Paramagnetic Coat: Conjugation of MRI Contrast Agents to the MS2 Capsid” *Nano Letters* **2006** 6, 1160.

- Paula Gould “Viral Capsid Shows MRI Contrast Potential” *Nano Today*, Aug. **2006**, Vol. 1, p. 13
- United Press International NewsTrack “Potential Shown to Enhance MRI Imaging” June 13, **2006**
- National Cancer Institute Nanotech News, “Coated Virus Nanoparticles Boost MRI Signals” June 26, **2006**
- *Science Daily* “Researchers Decorate Virus Particles, Showing Potential To Enhance MRI Capabilities” June 14, **2006**
- *Nanomedicine* “Decorated Viral Nanoparticles Improve MRI” Vol. 1, No. 2, p. 153, Aug. **2006**
- PhysOrg.com, “Researchers Decorate Virus Particles” June 14, **2006**
- Steve Lewis, “NYU Researchers Show Enhanced MRI Potential of Decorated Virus Particles” *NanoBiotech News*, **2006**, Vol. 4, No. 26, p. 3
- *RT-Image*, “Virus Particles Show Potential to Enhance MRI Capabilities” Vol. 19, July 17, **2006**
- EurekaAlert, “NYU Researchers Decorate Virus Particles, Showing Potential to Enhance MRI Capabilities” June 13, **2006**
- *Inside Nanotechnology* “Coated Virus Nanoparticles Boost MRI Signals” June 30 **2006**
- Jeff Bell “Small Wonders” *Advance for Imaging and Oncology*, Vol. 16, p. 26-28 Nov. **2006**
- Materials Research Society Research News, “Chemical Decoration of Virus Particles Enhances MRI Imaging” June 14, **2006**

- Foresight Nanotech Institute, Weekly News Digest, “Researchers Decorate Virus Particles” June 14, **2006**

Related to: Holub *et al.* “Clickity-Click: Highly Functionalized Peptoid Oligomers Generated by Sequential Conjugation Reactions on Solid-Phase Support” *Org. Biomol. Chem.* **2006**

- Top 10 downloaded articles in *Organic & Biomolecular Chemistry*, **2006**
- *Organic & Biomolecular Chemistry* Hot Paper: “Peptide Mimics Show Promise”, **2006**
- James Crow “New Tools for Biomedicine Just a Click Away” *Chemistry World* **2006** 3, p. 26

Related to: science outreach with the Experimental Cuisine Collective

- Television appearance, CUNY-TV, “Science Goes to the Movies”, first aired March **2016**
- Television appearance, Al Jazeera America, “TechKnow”, **2013**
- Television appearance, NHK Japan, “El Mundo”, Feb. **2012**
- Television appearance, PBS, “Sid the Science Kid”, first aired Dec. **2011**
- Television appearances, The Food Network, “Food Detectives”, multiple episodes, **2009** season
- Television appearance, Discovery Channel, “Primal Connections”, **2009**
- Television appearance, The Science Channel, “Brink”, Nov. 28, **2008**
- Educational Video, Boonsri Dickinson, “Elemental” YouTube series, “From Synthetic Peptoids to Banana Flambé” Jan. 17, **2014**, <http://www.youtube.com/watch?v=wRpmJvF4Lus>
- Educational Video, NBC-Learn K-12 in cooperation with the NSF. Al Roker. "The Chemistry of Burgers". NBC Learn. NBCUniversal Media, LLC. 02/09/2011. <https://archives.nbcblearn.com/portal/site/k-12/browse/?cuecard=52174>
- Educational Video, NBC-Learn K-12 in cooperation with the NSF. Beth Nissen. "The Chemistry of Condiments: Ketchup, Mustard and Mayo". NBC Learn. NBCUniversal Media, LLC. 04/06/2011. <https://archives.nbcblearn.com/portal/site/k-12/browse/?cuecard=52811>
- Educational Video, NBC-Learn K-12 in cooperation with the NSF. Beth Nissen. "The Chemistry of Tomatoes". *NBC Learn*. NBCUniversal Media, LLC. 03/08/2011. <https://archives.nbcblearn.com/portal/site/k-12/browse/?cuecard=52474>
- Educational Video, NBC-Learn K-12 in cooperation with the NSF. Beth Nissen. "The Chemistry of Pickles". *NBC Learn*. NBCUniversal Media, LLC. 03/28/2011. <https://archives.nbcblearn.com/portal/site/k-12/browse/?cuecard=52647>
- Educational Video, NPR, Science Friday Video, “The Scoop on Stretchy Ice Cream”, July **2008**
- Educational Video, NPR, Science Friday Video, “Making Spirits, Distilled”, June **2008**

- Radio segment, Radio New Zealand, Our Changing World program, “Kitchen Chemistry”, aired Aug. 25, **2011**, <http://www.radionz.co.nz/national/programmes/ourchangingworld/20110825>
- Radio segment, Radio New Zealand, This Way Up program, “Molecular Cooking: Boiling vs. Frying”, Aug. 27, **2011**, <http://www.radionz.co.nz/national/programmes/thiswayup/audio/2496579/molecular-cooking-boiling-vs-frying>
- Radio segment, Leonard Lopate show, WNYC, Feb. 6, **2008**
- Educational Podcast, Science & the City series, New York Academy of Science, July **2008**
- *Toronto Globe & Mail*, Wency Leung, “The Food on Film Series: Watching What They Eat”, Feb. 12, **2013**.
- *New York Times*, Christine Negroni, “Sick on the Road? Try the Grocery Store”, Aug. 21, **2012**
- *KiaOra* (Air New Zealand Inflight Magazine), August **2011**, p. 80
- *Chemical & Engineering News*, Lisa Jarvis, “Kitchen Chemistry: Our Love of Food Is Helping Bring Science to the Masses”, July 7, **2008**, p. 26-30
- *Time Magazine*, Joel Stein, “10 Ideas that Are Changing the World: Kitchen Chemistry”, Mar. 24, **2008**, p. 48
- *Washington Post*, Andreas Viestad, “Onions that Don’t Bite Back”, Apr. 16, **2008**, p. F1
- *New York Times*, J.J. Goode, “Nori Steps away from the Sushi”, Jan. 9, **2008**
- *New York Observer*, Matthew Fishbane, “In the Kitchen with Mounsieur Wizard”, Dec. 10, **2007**, p. C5
- *Art Culinaire*, “The Experimental Cuisine Collective”, Fall **2007**, p. 2-5
- *The Scientist*, Kent Steinriede, “Food, with a Side of Science” Apr. 27, **2007**
- Additional: Real Baking with Rose Levy Beranbaum; StarChefs.com, U.S. News & World Report

General Interest:

- *Time Out New York*, A. Halpern, “New York Simpsons: Hi-Diddly-ho, neighbor-inos!”, July 26, **2007**, p.17