

## *Curriculum Vitae*

### **JIN KIM MONTCLARE**

Associate Professor  
NYU Polytechnic School of Engineering  
Chemical and Biomolecular Engineering  
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<http://research.poly.edu/~cbtl/>

#### **EDUCATION**

##### *Degrees*

- 1997-2003 **Yale University**, Department of Chemistry, Ph.D. in Bioorganic Chemistry. NSF Predoctoral fellow (with Alanna Schepartz, thesis advisor). Thesis: "Specific Recognition of DNA by Natural Transcription Factors and Miniature Protein Mimics"
- 1993- 1997 **Fordham University**, B.S. with Chemistry major, Philosophy minor, *summa cum laude*. Clare Boothe Luce and Goldwater scholar (with Raju Kucherlapati and Robert H. Beer, advisors). Thesis: "Towards a Physical Map of Human Chromosome 21 and Synthesis of bis (N-isopropylsalicylaldiminato)iron(II)"

##### *Postdoctoral Research*

- 2003–2005 **California Institute of Technology**, Division of Chemistry and Chemical Engineering. NIH Postdoctoral fellow (with David A. Tirrell).

#### **PROFESSIONAL EXPERIENCE**

- 2015-present **Princeton University, Chemical and Biological Engineering**. Visiting Professor
- 2015-present **NYU Polytechnic School of Engineering, Department of Chemical and Biomolecular Engineering**. Director of Graduate Studies.
- 2014-present **NYU Materials Research Science & Engineering Center**. Associate Director for Technology Advancement
- 2014-present **NYU, Department of Chemistry**. Affiliate Faculty
- 2012-present **NYU Polytechnic School of Engineering, Department of Chemical and Biomolecular Engineering**. Associate Professor (with Tenure)
- 2008-present **NYU Polytechnic School of Engineering, Department of Chemical and Biomolecular Engineering**. Director of Materials Chemistry PhD Program
- 2005-2012 **NYU Polytechnic School of Engineering, Department of Chemical and Biomolecular Engineering**. Assistant Professor (Tenure-track)
- 2005-present **SUNY Downstate Medical Center, Department of Biochemistry**. Joint appointment
- 2003–2005 **California Institute of Technology, Division of Chemistry and Chemical Engineering**. NIH Postdoctoral fellow. Laboratory of David A. Tirrell.
- 1997-2003 **Yale University, Department of Chemistry**. NSF Predoctoral Fellow. Laboratory of Alanna Schepartz
- 1997 **Fordham University, Department of Chemistry**. Research Assistant. Laboratory of Robert H. Beer.
- 1995-1997 **Albert Einstein College of Medicine, Department of Molecular Genetics**. Research Assistant. Laboratory of Raju Kucherlapati.
- 1993 **Columbia University, Department of Chemistry**. Research Assistant.

Laboratory of Brian Bent.

**PRIZES, AWARDS AND HONORS**
*\*Indicates awards as faculty at NYU-Poly (independent career)*

- \*2015 Agnes Fay Morgan Research Award from Iota Sigma Pi, National Honor Society for Women in Chemistry
- \*2014 Distinguished Award for Excellence, Dedication to Invention, Innovation and Entrepreneurship
- \*2014 Executive Leadership in Academic Technology and Engineering Fellow
- \*2013 NYAS Chemical Biology Steering Committee
- \*2013 NSF I-Corps Award
- \*2010 Jacobs Excellence in Education Award
- \*2008 ACS PROGRESS/Dreyfus Lectureship
- \*2008 Dreyfus Special Grants Program Award
- \*2007 AFOSR Young Investigator Award
- \*2006 Wechsler Award for Excellence
- \*2006 Othmer Junior Fellow, Othmer Institute
- 2003-2005 National Institute of Health Postdoctoral Fellowship
- 2003 American Cancer Society Postdoctoral Fellowship (declined)
- 2001 T. F. Cooke Teaching Award for Organic Chemistry; Yale University
- 2001 Vessa Notchev Fellowship: Sigma Delta Epsilon-Graduate Women in Science
- 2000 Korean-American Scientists and Engineers Association Scholarship
- 1997-2000 National Science Foundation Graduate Research Fellowship
- 1997-2000 Pfizer Fellowship
- 1997 Phi Beta Kappa
- 1997 Phi Sigma Tau
- 1997 Phi Kappa Phi
- 1997 Alpha Sigma Nu
- 1997 Institute of American Chemists Award for overall excellence in chemistry; Fordham University
- 1996-1997 Barry M. Goldwater Scholarship
- 1996 Nathan Albstein Award for outstanding achievement as a junior chemistry major; Fordham University
- 1995-1997 Clare Boothe Luce Scholarship for women in science; Henry Luce Foundation
- 1995 Merck Index Award for excellence in organic chemistry; Fordham University

**PUBLICATIONS**
*\*Indicates publications as faculty at NYU-Poly (independent career); +indicates high-school and undergraduate student co-authors on publications*
*Refereed Research Journal Articles*

- \*44. Jasmin Hume, Raymond Chen, <sup>+</sup>Rudy Jacquet, Michael Yang<sup>+</sup> & **Jin K. Montclare**. Tunable Conformation Dependent Protein•Gold Nanoparticle Nanocomposites. *Biomacromolecules* (2015) *16*, 1706-1713. DOI: 10.1021/acs.biomac.5b00098
- \*43. Joseph A. Frezzo & **Jin K. Montclare**. Exploring the potential of engineered coiled-coil protein microfibers in drug delivery. *Therapeutic Delivery* (2015) *6*, 643-646.
- \*42. Haresh T. More<sup>+</sup>, Kevin S. Zhang, <sup>+</sup>Nikita Srivastava, Joseph A. Frezzo & **Jin K. Montclare**. Influence of Fluorination on Protein Engineered Coiled-coil Fibers. *Biomacromolecules* (2015) *16*, 1210–1217. DOI: 10.1021/bm5019062

- \*41. Jasmin Hume, Jennifer Sun,<sup>+</sup> Rudy Jacquet, P. Douglas Renfrew, Jesse A. Martin, Richard Bonneau, M. Lane Gilchrist & **Jin K. Montclare**. Engineered Coiled-Coil Protein Microfibers. *Biomacromolecules* (2014) *15*, 3503-3510. DOI: 10.1021/bm5004948 \*Highlighted in: <http://www.fiercedrugdelivery.com/press-releases/nyu-researchers-break-nano-barrier-engineer-first-protein-microfiber>
- \*40. Ching-Yao Yang, P. Douglas Renfrew, Andrew J. Olsen, Michelle Zhang<sup>+</sup>, Carlo Yuvienco, Richard Bonneau & **Jin K. Montclare**. Improved Stability and Half-life of Fluorinated Phosphotriesterase using Rosetta. *ChemBioChem* (2014) *15*, 1761-1764. DOI: 10.1002/cbic.201402062 \*Highlighted in: <http://www.medicalnewstoday.com/articles/280450.php>
- \*39. Haresh T. More<sup>+</sup> Joseph A. Frezzo, Jisen Dai, Seiichi Yamano & **Jin K. Montclare**. Efficient Gene Delivery from Supercharged Coiled-coil Protein and Cationic Lipid Nanocomplexes. *Biomaterials* (2014) *35*, 7188-7193. DOI: 10.1016/j.biomaterials.2014.05.005 \*Highlighted in: <http://academicminute.org/2014/11/jin-montclare-nyu-gene-therapy/>
- \*38. Seiichi Yamano, Jisen Dai, Shigeru Hanatani, Ken Haku, Takuto Yamanaka, Mika Ishioka, Tadahiro Takayama, Carlo Yuvienco, Sachin Khapli, Amr M. Moursi & **Jin K. Montclare**. Long-term efficient gene delivery using polyethylenimine with modified Tat peptide. *Biomaterials* (2014) *34*, 1705-1715. doi: 10.1016/j.biomaterials.2013.11.012 \*Highlighted in: <http://www.genengnews.com/gen-news-highlights/new-delivery-vehicle-developed-for-gene-therapy/81249258/>
- \*37. Daniel Yoo, Nick Tovar, Ryo Jimbo, Charles Marin, Rodolfo Anchieta, Lucas Machado & **Jin Montclare**, Fernando Guastaldi, Malvin Janal & Paulo Coelho, Increased Osseointegration Effect of BMP-2 on Dental Implants: An In Vivo Study. *Clinical Implant Dentistry and Related Research*. (2014) *102*, 1921-1927. doi: 10.1002/jbm.a.34862.
- \*36. Jennifer S. Haghpanah, Raymond Tu, Sandra Da Silva, Deng Yan, Silvana Mueller, Christoph Weder, E. Johan Foster, Iulia Sacui, Jeffery W. Gilman & **Jin K. Montclare**. Bionanocomposites: Differential Effects of Cellulose Nanocrystals on Protein Diblock Copolymers. *Biomacromolecules* (2013) *14*, 4360-4367. doi: 10.1021/bm401304w \*Highlighted in: [http://www.compositestoday.com/2013/11/could-hybrid-nano-materials-replace-human-tissue/?utm\\_content=bufferedc54&utm\\_source=buffer&utm\\_medium=twitter&utm\\_campaign=Buffer](http://www.compositestoday.com/2013/11/could-hybrid-nano-materials-replace-human-tissue/?utm_content=bufferedc54&utm_source=buffer&utm_medium=twitter&utm_campaign=Buffer)
- \*35. Herbert Lannon, Jennifer S. Haghpanah, **Jin K. Montclare**, Eric Vanden-Eijnden & Jasna Brujic. Force-clamp experiments reveal the free energy profile and diffusion coefficient of the collapse of proteins. *Phys. Rev. Lett.* (2013) *110*, 128301-6. doi:10.1103/PhysRevLett.110.128301
- \*34. Nancy Hom, Kinjal R. Mehta, Tsengming Chou, Amy B. Foraker, Frances M. Brodsky, Kent Kirshenbaum & **Jin K. Montclare**. Anisotropic nanocrystal arrays organized on protein lattices formed by recombinant clathrin fragments. *J. Mat. Chem.* (2012) *22*, 23335-23339. doi: 10.1039/C2JM35019J
- \*33. Carlo Yuvienco, Haresh T. More, Jennifer S. Haghpanah, Raymond S. Tu & **Jin K. Montclare**. Modulating Supramolecular Assemblies and Mechanical Properties of Engineered Protein Materials by Fluorinated Amino Acids. *Biomacromolecules*. (2012) *13*, 2273-2278. doi: 10.1021/bm3005116
- \*32. Susheel K. Gunasekar, Luona Anjia, Hiroshi Matsui & **Jin K. Montclare**. Effects of Divalent Metals on Nanoscopic Fiber Formation and Small Molecule Recognition of Helical Proteins. *Adv. Funct. Mat.* (2012) *22*, 2154-2159. doi: 10.1002/adfm.201101627 \*Highlighted in:

<http://www.worldofchemicals.com/media/protein-nanofibre-breakthrough-to-improve-drug-delivery-methods/2626.html>

\*31. Peter J. Baker, Yan M. Chan<sup>+</sup>, Moritz Hertel & **Jin K. Montclare**. Characterization and Identification of Protein Partners of Fn3 Domain in FnTm2. *Protein Expression and Purification* (2012) *81*, 42-48. doi: 10.1016/j.pep.2011.08.026

\*30. Peter J. Baker, Christopher S. Poultney<sup>+</sup>, Zhiqiang Liu, Richard Gross & **Jin K. Montclare**. Identification and Comparison of Cutinases for Synthetic Polyester Degradation. *Applied Microbiology and Biotechnology* (2012) *93*, 229-240. doi: 10.1007/s00253-011-3402-4

\*29. Min Dai, Jennifer S. Haghpanah, Navjot Singh,<sup>†</sup> Eric W. Roth, Alice Liang, Raymond S. Tu & **Jin K. Montclare**. Artificial Protein Block Polymer Libraries Bearing Two SADs: Effects of Elastin Domain Repeats. *Biomacromolecules* (2011) *12*, 4240-4246. doi: 10.1021/bm201083d

\*28. Kinjal R. Mehta, Ching-Yao Yang & **Jin K. Montclare**. Modulating Substrate Specificity of Histone Acetyltransferase with Unnatural Amino Acids. *Mol. BioSys.* (2011) *7*, 3050-3055. doi: 10.1039/c1mb05148b

\*27. Peter J. Baker & **Jin K. Montclare**. Enhanced Refoldability and Thermoactivity of Fluorinated Phosphotriesterase. *ChemBioChem* (2011) *12*, 1845-1848. doi: 10.1002/cbic.201100221 \*Highlighted in: <http://www.crazyengineers.com/stable-and-more-durable-fluorinated-proteins-developed-557/> \*

\*26. Seiichi Yamano, Jisen Dai, Carlo Yuvienco, Sachin Khapli, Amr M. Moursi & **Jin K. Montclare**. Modified Tat peptide with lipids enhances gene transfection efficiency via temperature-dependent and caveolae-mediated endocytosis. *J. Contr. Rel.* (2011) *152*, 278-285. doi: 10.1016/j.jconrel.2011.02.004 \*Highlighted in: [www.HealthNewsDigest.com](http://www.HealthNewsDigest.com)\*

\*25. Jennifer S. Haghpanah, Carlo Yuvienco, Eric W. Roth, Alice Liang, Raymond S. Tu & **Jin K. Montclare**. Supramolecular Assembly and Small Molecule Recognition by Genetically Engineered Protein Block Polymers Composed of Two SADs. *Mol. BioSys.* (2010) *6*, 1662-1667. doi: 10.1039/c002353a

\*24. Kinjal R. Mehta, Yan M. Chan<sup>+</sup>, Man X. Lee<sup>+</sup>, Ching Yao Yang, Natalya Voloshchuk & **Jin K. Montclare**. Mutagenesis of tGCN5 core region reveals two critical surface residues F90 and R140. *Biochem. Biophys. Res. Comm.* (2010) *400*, 363-368. doi: 10.1016/j.bbrc.2010.08.069

\*23. Natalya Voloshchuk & **Jin K. Montclare**, Incorporation of unnatural amino acids for synthetic biology. *Mol. BioSys.* (2010) *6*, 65-80. doi: 10.1039/b909200p

\*22. Jennifer S. Haghpanah, Carlo Yuvienco, Deniz E. Civay, Hanna Barra<sup>+</sup>, Peter J. Baker, Sachin Khapli, Natalya Voloshchuk, Susheel K. Gunasekar, Murugappan Muthukumar & **Jin K. Montclare**. Artificial protein block copolymers comprised of two self-assembling domains. *ChemBioChem.* (2009) *10*, 2733-2735. doi: 10.1002/cbic.200900539 \*Highlighted in: <http://futurity.org/>; <http://laboratoryequipment.com/news-smart-polymers-self-assemble-010710.aspx> \*

\*21. Zhiqiang Liu, Yuying Gosser, Peter J. Baker, Yaniv Ravee, Ziyang Lu<sup>+</sup>, Girum Alemu, Huiguang Li, Glenn L. Butterfoss, Xiang-Peng Kong, Richard Gross & **Jin K. Montclare**, Structural and functional studies of *A. oryzae* cutinase: Enhanced thermostability and hydrolytic activity of synthetic ester and polyester degradation. *J. Am. Chem Soc.* (2009) *131*, 15711-15716. doi: 10.1021/ja9046697

- \*20. Susheel K. Gunasekar, Mukta Asnani, Chandani Limbad, Jennifer S. Haghpanah, Wendy Hom<sup>+</sup>, Hanna Barra<sup>+</sup>, Soumya Nanda, Min Lu & **Jin K. Montclare**, N-terminal aliphatic residues dictate the structure, stability and assembly of the coiled-coil region of COMP. *Biochemistry*. (2009) 48, 8559–8567. doi: 10.1021/bi900534r
- \*19. Natalya Voloshchuk, Anita Y. Zhu<sup>+</sup>, David Snyder<sup>+</sup> & **Jin K. Montclare**, Positional effects of monofluorinated phenylalanines on histone acetyltransferase stability and activity. *Bioorg. Med. Chem. Lett.* (2009) 19, 5449-5451. doi: 10.1016/j.bmcl.2009.07.093
- \*18. Sachin Khapli, Jin R. Kim, **Jin K. Montclare**, Rastislav Levicky, Maurizio Porfiri & Stavroula Sofou. Frozen cyclohexane-in-water emulsion as a sacrificial template for the synthesis of multilayered polyelectrolyte microcapsules. *Langmuir*, (2009) 17, 9728-9733. doi: 10.1021/la901020j
- \*17. Susheel K. Gunasekar, Jennifer S. Haghpanah & **Jin K. Montclare**, Assembly of bioinspired protein fibers. *Polymers Adv. Tech.* (2008) 19, 454-468. doi: 10.1002/pat.1136
- \*16. Natalya Voloshchuk, Man Xia Lee<sup>+</sup>, Wan Wen Zhu<sup>+</sup>, Ismet Caglar Tanrikulu & **Jin K. Montclare**, Fluorinated chloramphenicol acetyltransferase thermostability and activity profile: improved thermostability by a single-isoleucine mutant. *Bioorg. Med. Chem. Lett.* (2007) 17, 5907-5911. doi:10.1016/j.bmcl.2007.07.107
- \*15. Tatyana Panchenko,<sup>+</sup> Wan Wen Zhu<sup>+</sup> & Jin K. Montclare, Influence of global fluorination on chloramphenicol acetyltransferase activity and stability. *Biotech. Bioeng.* (2006) 94, 921-930. doi: 10.1002/bit.20910
14. **Jin K. Montclare**, Soojin Son, Ginevra Clark, Krishna Kumar & David A. Tirrell, Biosynthesis of stable dimeric coiled-coils bearing (2S, 4R)-5',5',5'-trifluoroleucine and (2S, 4S)-5',5',5'-trifluoroleucine. *ChemBioChem* (2009) 10, 84-86. doi: 10.1002/cbic.200800164
13. **Jin K. Montclare** & David A. Tirrell, Evolving proteins of novel composition. *Angew. Chem. Int. Ed.* (2006) 45, 4518-4521. doi: 10.1002/ange.200600088
12. **Jin K. Montclare** & Alanna Schepartz, Miniature homeodomains: High specificity without an N-terminal arm. *J. Am. Chem. Soc.* (2003) 125, 3416-3417. doi: 10.1021/ja028628s
11. **Jin K. Montclare**, Leslie S. Sloan & A. Schepartz, Electrostatic control of half-site spacing preferences by the cyclic AMP Response Element Binding Protein: Selectivity at the expense of affinity. *Nucleic Acids Res.* (2001) 29, 3311-3319. doi:10.1093/nar/29.16.3311
10. Michele A. Torzilli, Shalton Colquoun, **Jin Kim** & Robert H. Beer, Structural and <sup>1</sup>H NMR spectroscopic characterization of bis (N-isopropylsalicylaldiminato)iron(II). *Polyhedron*, (2002) 21, 705-713. doi:10.1016/S0277-5387(02)00837-9

#### **Refereed Educational Journal Articles**

- \*9. Priya Chacko<sup>+</sup>, Sarah Appelbaum<sup>+</sup>, Heejoo Kim<sup>+</sup>, Jinhui Zhao<sup>+</sup> & **Jin K. Montclare**. Integrating Technology in STEM Education. *J. Tech. Sci. Ed.* (2015) 5, 5-14.
- \*8. Heejoo Kim<sup>+</sup>, Priya Chacko<sup>+</sup>, Jinhui Zhao<sup>+</sup> & **Jin K. Montclare**. Using Touch-Screen Technology, Apps, and Blogs To Engage and Sustain High School Students' Interest in Chemistry Topics. *J. Chem. Ed.* (2014) 91, 1818-1822. doi: 10.1021/ed500234z.
- \*7. Maurica S. Lewis<sup>+</sup>, Jinhui Zhao<sup>+</sup> & **Jin K. Montclare**. Development and Implementation of High School Chemistry Modules using Touch-Screen Technologies. *J. Chem. Ed.* (2012) 89, 1012-1018. doi: 10.1021/ed200484n

\*6. Robert Lorenzini<sup>+</sup>, Maurica S. Lewis<sup>+</sup> & **Jin K. Montclare**. College-Mentored Polymer/Materials Science Modules for Middle and High School Students. *J. Chem. Ed.* (2011) 88, 1105-1108. doi: 10.1021/ed1005618

\*5. Yan M. Chan<sup>+</sup>, Wendy Hom<sup>+</sup> & **Jin K. Montclare**. Mentored Chem-Bio Technology Lab to Promote Early Interest in Science. *J. Chem. Ed.* (2011) 88, 751-754. doi: 10.1021/ed100476e

#### **Book Chapters**

\*4. Joseph A. Frezzo & **Jin K. Montclare**, Natural Composite Systems for Bioinspired Materials. In Protein-based Engineered Nanostructures (2015) Edited by T. Z. Groves and A. L. Cortajarena. *In press*.

\*3. Haresh T. More, Ching-Yao Yang & **Jin K. Montclare**, Post-Translational Modification of Proteins Incorporating Non-natural Amino Acids. In Functional Polymers by Post-Polymerization Modification: Concepts, Practical Guidelines and Applications (2013) Edited by H. A. Klok and P. Theato. Chapter 12. 291-331. doi: 10.1002/9783527655427.ch12

\*2. Peter J. Baker & **Jin K. Montclare**, Biotransformations using Cutinase. In *Green Polymer Chemistry: Biocatalysis and Biomaterials* (2010) Edited by H. N. Cheng and R. A. Gross. 1043, 141-158. doi: 10.1021/bk-2010-1043.ch011

\*1. Peter J. Baker, Jennifer S. Haghpanah & **Jin K. Montclare**, Elastin-based Protein Polymers. In *Polymer Biocatalysts and Biomaterials II* (2008) Edited by H. N. Cheng and R. A. Gross. 999, 37-51. doi: 10.1021/bk-2008-0999.ch003

#### **Refereed Papers and Preprints Given at Conferences**

\*10. Joseph A. Frezzo, **Jin K. Montclare**, Joseph P. Alukal & Vikram Kapila, Sperm surface glycan modification by chemical reporter conjugation. *Fertility and Sterility* (2014) 102, e98.

\*9. Haresh More, Joseph A. Frezzo, Nikita Srivastava, Jisen Dai, Seiichi Yamano and **Jin K. Montclare**, Supercharged Coiled-coil Proteins based Lipoproteoplexes for Gene and Drug Delivery. *AAPS NBC conference* (2014).

\*8. Piul S. Rabbani, Joseph A. Frezzo, Maria Ham, April Duckworth, Muhammad Hyder Junejo, Nakul Talathi, Camilo Doig-Acuna, Haresh More, Kevin Zhang, Jessica Chang, Karan Mehta, Amanda Hua, **Jin K. Montclare**, Pierre B. Saadeh & Daniel J. Ceradini, An Engineered Lipoproteoplex Presents Robust Delivery Mechanism for Topical Gene Delivery. *PSRC 59th Annual Meeting* (2014) 133, 3S 10-99.

\*7. **Jin K. Montclare**. Fluorinated Proteins: From Enhanced Stability to Modulating Mechanical Properties. *245<sup>th</sup> ACS National Meeting*. (2013).

\*6. Min Dai, Susheel Gunasekar, Jennifer S. Haghpanah, Haresh More, Carlo Yuvienco & **Jin K. Montclare**, Bioinspired Artificial Protein Materials: Self-Assembly and Order from Nano to Macroscale. *PMSE Preprints* (2011) 241, 61-62.

\*5. Min Dai, Jennifer S. Haghpanah, Carlo Yuvienco & **Jin K. Montclare**, Bioinspired Artificial Protein Materials: Self-Assembly and Order from Nano to Macroscale. *MRS Fall Meeting Proceedings* (2010) 1301, DOI:10.1557/opl.2011.471.

- \*4. Peter J. Baker & **Jin K. Montclare**, Investigation of novel cutinases for biotransformations. *Polymer Preprints* (2009) 50, 44-45.
- \*3. Jennifer S. Haghpanah, Susheel K. Gunasekar & **Jin K. Montclare**, Protein-derived Block Polymers. *PMSE Preprints* (2008).
- \*2. **Jin K. Montclare**, Synthesis of functional artificial biopolymers. *Polymer Preprints* (2007) 48, 1015-1016.
- \*1. Hongkwan Cho, Kunal Shah<sup>+</sup> & **Jin K. Montclare**, Artificial protein polymers. *Polymer Preprints* (2006) 42, 227-228.

### INVITED PRESENTATIONS

- Dept of Chemistry and the Organization for Cultural Diversity in Science, UCLA, Los Angeles, CA June 2016.
- Synthetic Biopolymers, Pacificchem International Chemical Congress, Honolulu, HI, December 2015.
- Chemical and Biological Eng, Princeton University, Princeton, NJ Nov 2015.
- Department of Chemical Engineering and Materials Science Stevens Institute of Technology, Hoboken, NY October 2015
- 2<sup>nd</sup> Young Investigator Research Program Annual Meeting, Arlington, VA, June 2015.
- 7th Annual New York State Biotechnology Symposium, Brookhaven National Laboratory, Upton, NY May 2015.
- Future of Genomics, NYU's Center for Genomics & Systems Biology, NYU, New York, NY May 2015.
- New Dimensions Lecture Series, Brooklyn Technical High School, Brooklyn, NY April 2014.
- Biomedical Engineering Department, University of Florida, Gainesville, FL December 2014.
- Biomedical Engineering Symposium, NYU-Poly, Brooklyn, NY Sept 2014.
- Young Investigator Research Program Annual Meeting, Arlington, VA, June 2014.
- World Science Festival, Science Hackathon, NYU-Poly, May-June 2014.
- 3<sup>rd</sup> Annual USA Science & Engineering Festival, Washington, DC, April 2014.
- Department of Chemistry, CUNY CSI, Staten Island, NY March 2014.
- GOALS Program, Intrepid Museum, New York, NY March 2014.
- NYWiSTEM, New York Academy of Sciences, New York, NY, November 2013.
- Department of Chemistry, Fordham University, Bronx, NY, October 2013.
- World Science Festival, Science Hackathon, NYU-ITP, June 2013.
- Department of Plastic Surgery, NYU Langone Medical Center, May 2013.
- Saturday Science Seminar, NYU Steinhardt and GSAS, April 2013.
- Speaker for 2013 ACS Award for Creative Work in Fluorine Chemistry awardee Iwao Ojima, 245<sup>th</sup> ACS National Meeting, New Orleans, April 2013.
- Department of Biomedical Engineering, Columbia University, October 2012.
- Chemistry and Biochemistry Department, Queens College, October 2012.
- 244<sup>th</sup> ACS National Meeting, Philadelphia, PA, August 2012.
- Biomedical Engineering and Chemistry Departments, Tufts University, July 2012.
- Peptides: Chemistry and Biology Gordon Research Conference, Ventura, CA, February 2012.
- Molecular Pharmacology and Chemistry, MSKCC, November 2011.
- Chemistry Department, Brooklyn College, September 2011.
- ACS Polymers in Medicine and Biology, Santa Rosa, CA, September 2011.
- Chemistry Division, Naval Research Laboratory, Washington, DC, August 2011
- Breast Cancer Research Programming Meeting, NYU Clinical Cancer Center, July 2011.

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- Biochemistry Department, Albert Einstein College of Medicine, June 2011.
  - Chemistry and Chemical Biology Department, Cornell, April 2011.
  - 2011 DFG-NSF Research Conference, New York, March 2011.
  - 241<sup>st</sup> ACS National Meeting, Anaheim, CA, March 2011.
  - Division of Chemistry and Chemical Engineering, Caltech, March 2011.
  - Bioengineering Department, UCLA, March 2011.
  - Department of Materials Science and Engineering, Johns Hopkins University, March 2011.
  - Department of Structural and Chemical Biology, Mount Sinai School of Medicine, March 2011.
  - MRI Meeting, NYU School of Medicine, February 2011.
  - Department of Chemistry, NYU, February 2011.
  - Department of Chemical Engineering, Columbia University, February 2011.
  - Department of Chemistry, Rutgers The State University of New Jersey, January 2011.
  - 2010 Pacifichem, Protein, Peptide and Peptidomimetics Design Symp., Honolulu, HI, December, 2010.
  - Polymers Division, NIST, Gaithersburg, MD, December 2010.
  - Materials Science and Engineering Department, University of Delaware, December 2010.
  - Princeton Institute for Science & Technology of Materials, Princeton University, October 2010.
  - CUNY Inst. for Macromolecular Assemblies, Department of Chemistry, CSI, September 2010.
  - NIH Chemical Insights into Biological Processes, Frederick, MD, August 2010.
  - Department of Chemistry and Biochemistry, CCNY, July 2010.
  - Cancer Center, NYU Medical Center, May 2010.
  - Chemistry Department, Hofstra University, March 2010.
  - Chemistry Department, Brandeis University, March 2010.
  - IGERT, UMass Amherst, February 2010.
  - 2010 Natural and Extremophilic Systems, Washington, DC, January 2010.
  - 238<sup>th</sup> ACS National Meeting, Washington, DC, August 2009.
  - Department of Chemistry, Boston College, March 2009.
  - Department of Chemistry, Tufts University, March 2009.
  - Department of Chemistry, Hunter College, February 2009.
  - Department of Chemistry, SUNY Stony Brook, February 2009.
  - New York Structural Biology Discussion Group, NYAS, January 2009.
  - 2009 Natural Materials, Systems and Extremophiles, Arlington, VA, January 2009.
  - NYU Chemistry Club, December 2008.
  - Department of Chemistry and Biochemistry, CCNY, December 2008.
  - Department of Chemistry and Environmental Engineering, NJIT, November 2008.
  - Department of Chemistry and Biochemistry, University of Delaware, November 2008.
  - Department of Chemistry, NYU, October 2008.
  - Department of Chemistry, St. John's University, October 2008.
  - Department of Biochemistry, UMDNJ CABM, October 2008.
  - Institute of Materials Science, University of Connecticut, September 2008.
  - Department of Biology, Brooklyn College, September 2008.
  - 40th Middle Atlantic Regional Meeting (MARM), Queensborough Comm. College, May 2008.
  - AAARI Conference, CUNY Graduate Center, May 2008.
  - Biomedical Engineering Symposium Series, SUNY-Downstate Medical Center, April 2008.
  - Department of Biology, NY City Tech College, April 2008.
  - Yale University, January 2008.
  - 2008 Biomimetics, Biomaterials & Biointerfacial Sciences Rev, Key West, FL, January 2008.
  - New York Nanoscience Discussion Group, NY, NY, November 2007.
  - 2007 UKC Meeting, Washington, DC, August 2007.
  - 2007 IUPAC Macromol. for a Sustainable, Safe and Healthy World, Brooklyn, NY, June 2007.



- NY City Tech College, April 2007.
- 2007 Internat. Young Scientists Seminar, Nagoya Inst. Tech., Nagoya, Japan, March 2007.
- Department of Molecular Design & Eng., Nagoya University, Nagoya, Japan, March 2007.
- Department of Polymer Chemistry, Kyoto University, Kyoto, Japan, March 2007.
- Department of Molecular Chem. & Biochem., Doshisha University, Kyoto, Japan, March 2007.
- Department of Chemistry, Brooklyn College, February 2007.
- Research Department, Unilever, November 2006.
- Department of Chemical Engineering, Cooper Union, November 2006.
- 232<sup>nd</sup> ACS National Meeting, San Francisco, CA, September 2006.
- Department of Chemistry, Long Island University, March 2006.
- Department of Chemistry, Fordham University, February 2006.
- Department of Microbiology and Immunology, SUNY-Downstate Med. Center, October 2005.

### CONTRIBUTED PRESENTATIONS

- Min Dai, Jennifer S. Haghpanah, Carlo Yuvienco & **Jin K. Montclare**. Bioinspired Artificial Protein Materials: Self-Assembly and Order from Nano to Macroscale. 2010 MRS Meeting, Boston, MA, December 2010.
- Carlo Yuvienco, Jennifer S. Haghpanah, Glendon McLachlan, Eric Roth & **Jin K. Montclare**. Tunable Self-assembly of Artificial Protein Materials. Biopolymers Gordon Conference, Newport, RI, June 2010 (*poster*).
- **Jin K. Montclare**. Structural and functional analysis of *Alternaria brassicola* cutinase. 236<sup>th</sup> ACS National Meeting, Philadelphia, PA, August 2008.
- Jennifer S. Haghpanah, Susheel K. Gunasekar & **Jin K. Montclare**. Protein-derived Block Polymers. 236<sup>th</sup> ACS National Meeting, Philadelphia, PA, August 2008.
- Natalya Voloshchuk, Anita Y. Zhu & **Jin K. Montclare**. Biosynthesis and characterization of fluorinated histone acetyltransferases. 22<sup>nd</sup> Annual Symposium of the Protein Society. San Diego, August 2008.
- Zhiqiang Liu, Yuying Gosser, Richard A. Gross & **Jin K. Montclare**. Structural and Functional Analysis of *Alternaria brassicola* cutinase. Biocatalysis Gordon Conference, Smithfield, RI, July, 2008 (*poster*).
- Natalya Voloshchuk, Anita Y. Zhu & **Jin K. Montclare**. Engineering artificial histone acetyltransferases bearing non-natural amino acids. Bioorganic Gordon Conference, Andover, NH, June 2008, (*poster*).
- **Jin K. Montclare**. Synthesis of functional artificial biopolymers. 234<sup>th</sup> ACS National Meeting, Boston, MA, August 2007.
- **Jin K. Montclare**. Engineering artificial histone acetyltransferases bearing non-natural amino acids. Proteins Gordon Conference, Andover, NH. June 2007 (*poster*).
- **Jin K. Montclare**. Designing artificial proteins: from biosynthesis to evolution. 2006 UKC Meeting, Teaneck, NJ, August 2006.

- **Jin K. Montclare**, Evolving non-natural biopolymers by codon reassignment. Biopolymers Gordon Conference, Andover, NH, June 2006 (*poster*).

## PATENTS AND INVENTIONS

*\*Indicates patents as faculty at NYU-Poly (independent career)*

\*• **Jin K. Montclare**, Joseph A. Frezzo, Cynthia Xu & Youssef Wadghiri, Engineered Fluorinated Biomaterial as Theranostic Agents. Provisional Patent filed 7/17/2015 (NYU).

\*• **Jin K. Montclare**, Richard Bonneau, P. Douglas Renfrew, Ching-Yao Yang & Carlo Yuvienco, Computationally-designed fluorinated phosphotriesterase for the efficient hydrolysis of organophosphates. Provisional Patent filed 7/7/2014 (NYU).

\*• **Jin K. Montclare** & Haresh T. More, Protein Engineered Systems for Dual Small Molecule and Gene Delivery. Provisional Pat #61863962 (NYU-Poly).

\*• **Jin K. Montclare** & Jasmin Hume, Protein Nanofibers. Provisional Pat # 61875147 (NYU-Poly).

\*• **Jin K. Montclare** & Carlo Yuvienco, Fluorinated Protein-Based Polymeric Carriers. US20130331465A1 Awarded 12/12/2013 (NYU-Poly).

\*• **Jin K. Montclare**, Jennifer Haghpanah & Man Xia Lee, Polymer Carrier. US20070170959 Awarded 7/2009 (NYU-Poly).

• **Jin K. Montclare**, Ismet Caglar Tanrikulu & David A. Tirrell, Directed Evolution of Non-natural Amino Acid-Containing Proteins. Filed 2/7/2005 (California Institute of Technology).

## PROFESSIONAL SOCIETIES

AWIS Member (2013), ISPE Member (2007), Biophysical Society (2007), Materials Research Society (2007), Biochemical Society (2006), Protein Society (2005), American Association of Cancer Research (2005), American Institute of Chemical Engineers (2005), New York Academy of Sciences (2005), Metropolitan Association of College and University Biologists (2005), Iota Sigma Pi (Women in science) (2000), Sigma Delta Epsilon Graduate Women in Science (2000), Korean-American Scientists and Engineers Association (2000), Women In Science at Yale (WISAY) (1999), American Chemical Society (1998), Sigma Xi (1997)

## GRANTS AND CONTRACTS

### EXTERNAL SOURCES

**Total=\$4,937,598**

#### *Active Grants*

- **National Science Foundation**

09/01/15-08/31/18

“Engineered Protein-Lipid Systems for siRNA and Small Molecule Delivery,”

Total \$300,000 (sole PI, 100%)

- **Army Research Office**

08/01/15-07/31/18

“Patterned protein and hybrid materials: responsive ‘chemomechanical’ shape-shifters”

Total \$367,806 (sole PI, 100%)

- **Department of Energy**

04/15/15-03/14/16

Use of BNL X-ray Diffractometer, AFM 3D-BIO,

Near Field Scanning Probe Microscope (sole PI, 100%)

- **National Science Foundation** 09/11/14-03/10/16  
 “PFI:AIR - TT: Prototyping a Gene Transfection Tool, GeneTrain”  
 Total \$212,000 (PI Montclare, co-PI Becker)
- **National Science Foundation MRSEC** 11/01/14-08/31/19  
 “NYU Materials Research Center”  
 Total \$14,400,000 out of which \$250,000 is allocated for Technology Advancement and IRG2 research (PI Ward, Associate Director of Technology Advancement & IRG2 Montclare)
- **National Institute of Health** 07/01/13-06/30/17  
 “Computational Studies of Histone Modifications”  
 Total \$1,200,000 out of which \$144,000 (PI Zhang, co-PI Montclare)
- Completed Grants**
- **Department of Energy** 04/15/14-03/14/15  
 Use of BNL X-ray Diffractometer, AFM 3D-BIO,  
 Near Field Scanning Probe Microscope (sole PI, 100%)
- **Teagle Foundation** 07/01/14-06/30/15  
 “CBTL”  
 Total \$20,000 (sole PI, 100%)
- **National Science Foundation** 09/01/12-08/31/15  
 “Engineered Protein-Based Multi-Functional Materials”  
 Total \$330,000 (sole PI, 100%)
- **Army Research Office** 10/01/11-12/31/14  
 “Bottom-up Assembly of Engineered Protein Fibers”  
 Total \$369,819 (sole PI, 100%)
- **Pinkerton Foundation** 12/01/12-09/30/14  
 “Applied Science Promoting Innovation in Research & Engineering”  
 Total \$399,873 (PI Esner, co-PI Kapila, Iskander, Montclare, Porfiri, Ghandehari, et al)
- **National Science Foundation** 09/01/11-08/31/14  
 “Engineering of *Aspergillus oryzae* cutinase to improve its stability and activity on synthetic polyester substrates”  
 Total \$249,356 (PI Gross, co-PI Montclare)
- **National Science Foundation** 09/01/11-08/31/14  
 “MRI: Acquisition of a 500 MHz NMR Spectrometer for Teaching and Research”  
 Total \$392,500 (PI Gross, co-PI Kim, Montclare, Levicky, Cowman)
- **National Science Foundation MRSEC** 09/01/08-08/31/14  
 “NYU MRSEC: Semantophoretic Assemblies”  
 Total \$7,000,000 out of which \$54,000 is allocated (PI Ward, Seed Montclare)
- **National Science Foundation (Innovation-Corps)** 03/01/13-02/28/14  
 “Lewis Dots 2.0”  
 Total \$50,000 (sole PI, 100%)

- 
- **Teagle Foundation** 07/01/13-06/30/14  
 “Biomedical Summer Course Program for STEP”  
 Total \$20,000 (sole PI, 100%)
  - **Department of Energy** 05/01/12-04/14/14  
 Use of BNL X-ray Diffractometer, AFM 3D-BIO,  
 Near Field Scanning Probe Microscope (sole PI, 100%)
  - **DoD Defense University Research Instrum. Prog.** 07/01/12-06/31/13  
 “Hybrid Bionanomaterials: Instrumentation System for Biomaterials Isolation,  
 Templatation of Inorganic Nanocrystals and Magnetic Characterization”  
 Total \$172,856 (sole PI, 100%)
  - **Teagle Foundation** 07/01/12-05/01/13  
 “Life Science Summer Course Program for STEP”  
 Total \$20,000 (sole PI, 100%)
  - **Army Research Office** 06/01/11-05/31/12  
 “Conference Support for Bio-Inspired Self-Assembly of Macromolecules”  
 Total \$5,000 (PI Montclare, co-PI, Kasi)
  - **Air Force Office of Scientific Research** 07/01/11-06/30/12  
 “Conference Support for Bio-Inspired Self-Assembly of Macromolecules”  
 Total \$10,000 (PI Montclare, co-PI, Kasi)
  - **Teagle Foundation** 07/01/10-05/01/12  
 “Virtual “Chemistry Reality” by Touch-Screen to Teach and Inspire Underprivileged Girls in  
 Brooklyn”  
 Total \$35,000 (sole PI, 100%)
  - **Teagle Foundation** 07/01/11-05/01/12  
 “STEMulus Summer Program for UAI”  
 Total \$20,000 (sole PI, 100%)
  - **Department of Energy** 01/01/11-12/01/12  
 “Engineered coiled-coil protein for templating inorganic nanocomposites”  
 Use of BNL TEM and SAXS (sole PI, 100%)
  - **Camille and Henry Dreyfus Foundation** 07/01/08-09/01/11  
 “Mentored Chem-Bio Technology Lab: from virtual small molecules to biomolecules”  
 Total \$50,000 (sole PI, 100%)
  - **National Science Foundation MRI** 08/02/07-07/31/11  
 “MRI: Development of Ring-Ribbon Resonator Biosensor Instrument”  
 Total \$445,881 (PI Teraoka, co-PIs Montclare and Arnold)
  - **Army Research Office** 06/20/10-06/20/11  
 “Multifunctional Fluorinated Block Polymers”  
 Total \$50,000 (sole PI, 100%)
-

- **Industrial Members of Biocatalysis Center** 04/15/10-04/14/11  
 “Center for Biocatalysis and Bioprocessing”  
 Total \$300,000 (PI Gross, co-PIs Montclare, Zhou and Scandola)
- **NYS Department of Education** 05/15/08-/05/14/09  
 “Protein Engineering Montclare Lab”  
 Total \$57,000 (sole PI, 100%)
- **DoD Defense University Research Instrum. Prog.** 04/15/08-03/14/09  
 “High Throughput Instrumentation System for the Streamlined Synthesis of Eng. Protein”  
 Total \$232,507 (sole PI, 100%)
- **Unilever** 02/01/07-10/31/08  
 “Protein Encapsulators”  
 Total \$20,000 (sole PI, 100%)
- **Air Force Office of Scientific Research Young Inv. Prog.** 07/01/07-06/30/10  
 “Engineered Protein Polymers”  
 Total \$325,000 (sole PI, 100%)
- **Computer Research Association’s Women in Computing** 07/01/07-06/30/09  
 “Machine Learning Algorithms for Artificial Protein Design”  
 Total \$30,000 (co-PIs Frankl, Hellerstein, Montclare)
- **Wechsler Award** 11/15/06-11/15/08  
 “Chemical Biology of Unnatural Proteins”  
 Total \$25,000 (sole PI, 100%)

**INTERNAL SOURCES**
**Total=\$805,001**
*Active Grants*

- **Technology Acceleration & Commercialization Fund** 04/1/15-03/30/16  
 “Optimizing Fluorinated Phosphotriesterases for Decontaminating Pesticides”  
 Total \$50,000 (PI Montclare)
- **Shiffrin-Meyer Breast Cancer Discovery Fund (NIH)** 08/01/15-07/31/16  
 “Targeted Protein Derived Delivery Agents for Treatment of Metastatic Breast Cancer”  
 Total \$50,000 (PI Montclare, co-PIs Wadghiri, Kim)
- **NYU Cancer Institute Development Project Program (NIH)** 11/01/13-10/31/14  
 “Targeted Protein Derived Delivery Agents for Treatment of Metastatic Breast Cancer”  
 Total \$40,000 (PI Montclare, co-PIs Wadghiri, Kim, Jhaveri)
- **CTSI Collaborative Translational Pilot Project (NIH)** 10/01/13-09/30/14  
 “Protein Engineered Compounds as Theranostic Agents for the Monitoring and Treatment of  
 Tau via Magnetic Resonance and Paclitaxel”  
 Total \$40,000 (PI Wadghiri, co-PI Montclare)
- **CTSI Collaborative Translational Pilot Project (NIH)** 01/01/13-12/31/15  
 “Engineered Protein Based Delivery Agents for the Treatment of Osteoarthritis”

Total \$40,000 (PI Montclare, co-PI Kirsch)

**Completed Grants**

- Shiffrin-Meyer Breast Cancer (NIH)** 07/01/14-06/31/15  
 “Targeted Protein Derived Delivery Agents for Treatment of Metastatic Breast Cancer”  
 Total \$50,000 (PI Montclare, co-PIs Wadghiri, Kim, Jhaveri)
- Applied Research Support Fund** 09/1/14-08/31/15  
 “Promoting diabetic wound healing using localized gene therapy”  
 Total \$50,000 (PI Ceradini, co-PI Montclare)
- NYU Provost’s Office Mega Grants Initiative** 12/12/12-12/11/13  
 “Bioinspired Composite Structures”  
 Total \$50,000 (PI Montclare, co-PI Coelho)
- **NYU-Poly Seed Grant** 03/01/10-03/01/12  
 “Designer Coats for Protein Assemblies”  
 Total \$80,000 (PI Montclare, co-PI Kirshenbaum)
- **NYU-Poly Seed Grant** 03/01/09-03/01/11  
 “Single Molecule Force Spectroscopy of Fluorinated Proteins”  
 Total \$80,000 (co-PIs Montclare, co-PI Brujic)
- **Polytechnic Institute Angel Funds** 07/01/08-09/01/09  
 “I<sup>2</sup>E: Seek and Destroy iGEM Pilot Project”  
 Total \$10,001 (sole PI, 100%)
- **Polytechnic Institute Angel Funds** 07/01/07-06/30/09  
 “Cooperative-Bioactive Systems”  
 Total \$250,000 (co-PIs Kim, Levicky, Montclare, Porfiri, Sofou)
- **Othmer Junior Fellow** 07/01/06-07/01/09  
 “Engineering Artificial Proteins”  
 Total \$15,000 (sole PI, 100%)

**STUDENTS SUPERVISED**

**1. CURRENT**

**a. Postdoctoral researcher**

- Dr. Carlo Yuvienco PhD, NYU-Poly

**b. PhD Candidate**

Biomedical Engineering, Chemical Engineering and Materials Chemistry PhD Program

- Joseph Frezzo 2013-
- Andrew Olsen 2013-
- Liming Yin 2012-
- Ching-Yao Yang 2011-
- Lindsay Hill 2015-

**c. MS Candidate**

Bioinformatics, Biotechnology, Biomedical Engineering and Chemical Engineering MS Program

- Nikita Srivastava 2013-
- Saakshi Gupta 2015-
- Albert Augustinus 2015-

#### **d. Undergraduate Student**

Biochemistry, Biomolecular Science, Chemistry, Chemical and Biological Engineering

- Nicole Schnabel BS 2019 expected
- Teeba Jihad BS 2018 expected
- Chappel Sharrock BS 2018 expected
- Raymond Chen BS/MS 2015
- Patrick Klementowicz BS 2016 expected
- Edward Gryczka BS 2016 expected
- Cynthia Xu BS 2015
- Kevin Zhang BS/MS 2016 expected

## **2. FORMER STUDENTS**

### **a. Postdoctoral researcher**

- Dr. Sachin Khapli PhD, Rice University (Research Associate at NYU Abu Dhabi)
- Dr. Zhiqiang Liu PhD, Jiangnan University (Associate Professor at Institute of Bioengineering, Zhejiang University of Technology, joint with R Gross)
- Dr. Natalya Voloshchuk PhD, CUNY (Adjunct Assistant Professor at Rutgers)
- Dr. Mark Schofield PhD, MIT (Associate Professor at Haverford College)

### **b. Graduate Student**

- Sukanya Goswami MS 2015
- Kazi Helal MS 2015
- Haresh More PhD 2015 (Bristol Meyers Squib)
- Jasmin Hume PhD 2015 (TBA)
- Carlo Yuvienco PhD 2014 (postdoc at NYU-Poly)
- Rudy Jacquet MS 2014 (researcher at Columbia)
- Ekta Sharma MS 2014 (researcher at Mount Sinai School of Medicine)
- Min Dai PhD 2013 (postdoc at Mount Sinai School of Medicine)
- Apurva Bapat MS 2014 (Seimans Healthcare)
- Lee von Krauss PhD 2013 (Halo Neuro Inc)
- Jennifer S. Haghpanah PhD 2012 (postdoc at Columbia)
- Kinjal Ramesh Mehta PhD 2012 (Blue Sky Biotech)
- Susheel K. Gunasekar PhD 2012 (postdoc at U. Iowa Carver College of Medicine)
- Martin Gantt MS 2012 (Business Analyst at Earthlink)
- Peter James Baker PhD 2011 (Teva)
- Dharanikanth Sathyanarayana MS 2011 (Lancaster Laboratories)
- Aayush Agarwal MS 2010 (Roselab Bioscience)
- Mukta Asnani MS 2010 (SUNY Downstate Med. Center, PhD Program)
- Renata Barradas MS 2010 (clinical research manager at MSKCC)
- Taher Dawoodi MS 2010 (beverage process engineer at Pepsico)
- Yogesh T. Ganesan MS 2010 (research technician at MSKCC)
- Chandani Limbad MS 2009 (research technician at California Pacific Medical Center Research Institute)
- Jaladhi Nayak MS 2009 (research assistant at Mount Sinai School of Medicine)
- Åsa Ronkvist PhD 2008 (Astra Zenica)
- Sindhuja R. Musku MS 2008 (clinical data analyst at Novartis)

- Soumya Nanda MS 2008 (research assistant at Mount Sinai School of Medicine)
- Wondong Cho MS 2007 (University of Cincinnati, PhD Program)
- Hongkwan Cho MS 2007 (postdoc at Johns Hopkins)

**c. Undergraduate Student (with publications<sup>^</sup>)**

- Jing Chen BS 2018 expected
- Kyle Okino BS 2016 expected
- Michael Yang<sup>^</sup> BS 2016 expected
- Grace Choi BS 2015
- Ja-Shin (Justine) Wu BS 2015
- Sarah Appelbaum, NYU-Poly BS/MS 2014 (Deloitte Consulting)
- Priya Chacko, NYU-Poly<sup>^</sup> BS 2014 (Estee Lauder)
- Michael Lupo, NYU-Poly BS 2014 (research technician at MSKCC)
- Jennifer Sun, NYU-Poly<sup>^</sup> BS 2014 (Data Analyst at Audicus)
- Heejoo Kim, NYU-Poly<sup>^</sup> BS 2013 (researcher at NYU-Poly)
- Nyi-Nyi Aung, NYU-Poly BS 2014
- Navjot Singh, NYU-Poly<sup>^</sup> BS 2013 (SUNY Downstate Medical School)
- Kareem Rayn, NYU-Poly BS 2013
- Jinhui Zhao, NYU-Poly<sup>^</sup> BS 2012 (SUNY Downstate Medical School)
- Christopher Inoue, Chaminade U. BS 2012
- Daniel Choi, Fordham U. BS 2013 (World Relief Dupage/Arora)
- Fong Bell, NYU-Poly BS 2011 (graduate student at MSSM)
- Javi Balroop, NYU-Poly BS 2011 (MS student at Columbia University)
- Maurica S. Lewis, NYU-Poly<sup>^</sup> BS 2011 (Science Teacher)
- Robert G. Lorenzini, NYU-Poly<sup>^</sup> BS 2010 (UConn PhD Program)
- Rich Hwang, SUNY Binghamton BS 2010 (SUNY Downstate Medical School)
- Wendy Hom, NYU-Poly<sup>^</sup> BS 2010 (SUNY Stony Brook PhD Program)
- Yan Mei Chan, NYU-Poly<sup>^</sup> BS/MS 2009 Honors Thesis (Penn S.U. PhD Program)
- David Snyder, Wesleyan U.<sup>^</sup> BS 2009 (Northwestern U. PhD Program)
- Wah Yan, NYU BS 2009 (GfK Bridgehead)
- Hanna Barra, NYU-Poly<sup>^</sup> BS 2009 (lab technologist at New York Blood Center)
- Eran Geva, NYU-Poly BS 2009 (working at NYUCD, MBA from NYU)
- Mandy Lee, NYU-Poly<sup>^</sup> BS 2008 Honors Thesis (research assistant at MSKCC)
- Anita Zhu, NYU-Poly<sup>^</sup> BS/MS 2008 Honors Thesis (Cornell U PhD Program)
- Waqas Ahmed, NYU-Poly BS 2008, summer student 2006
- Narissa Puran, NYU-Poly BS 2008, summer student 2006 (Med School Int Health)
- Logan Yu, Cooper Union BS 2008 spring student 2007 (Brooklyn Law School)
- Cindy Mei, St. Joseph's U. BS 2008, summer student 2007
- Priscilla Paul, Cooper Union BS 2008, spring student 2007 (graduate student at RPI)
- Maksim Beygelman, Cooper Union BS 2008, spring student 2007
- Tatyana Panchenko, NYU-Poly<sup>^</sup> BS/MS 2006 Honors Thesis (U Penn PhD Program)
- Kunal Shah, NYU-Poly BS 2006 Honors Thesis (Corre Group)
- Wan Wen Zhu, NYU-Poly<sup>^</sup> BS 2006 Honors Thesis (Texas A&M PhD Program)

**d. High School Student**

- Soar Cho, summer student 2015
- Georgica Popcorn, summer student 2015
- Sofia Esner, summer student 2015
- Kiana Jackson, ARISE summer student 2015
- Mariya Tasnim, ARISE summer student 2015



- Nicolas Almodovar summer and school year 2014-15
- Janill Lema, ARISE summer student 2014
- Jeffrey Wong, ARISE summer student 2014
- Maxwell McFarlane, summer student 2013
- Michelle Zhang, summer student 2011 (Cornell)^
- Medina Mishiyeva, summer student 2010
- Joshua Chao, summer student 2009 (Vanderbilt)
- Nailah Smith, Edward J. Murrow High School, summer student 2007, 2008 (NYU-Poly)
- Nafeesa Ebraheim, Benjamin ISD, summer student 2006
- Alexandra Flores, Benjamin Banneker Academy, summer student 2006
- Elena Soli, Horace Mann High School, summer student 2006
- Cristabel Wei, The Ethel Walker School, summer student 2006

### COMPLETED DISSERTATIONS

19. Raymond Chen, “Gold nanoparticle templation of naturally derived proteins” August 2015, MS Biomedical Engineering
  
18. Jasmin Hume, “Self-assembling protein biomaterials for metal nanoparticle templation” February 2015, PhD Materials Chemistry
  
17. Haresh T. More, “Rational Design and Application of Alpha-Helical Protein based Biomaterials” January 2015, PhD Materials Chemistry
  
16. Carlo Yuvienco, “Modulation of the Physicochemical Properties of Block Protein Co-Polymers via Fluorination and the Adaptation of Coiled-Coil Proteins for Small Molecule Delivery Applications” September 2014, PhD Biomolecular Engineering
  
15. Jennifer Sun, “Engineered Self-Assembling Coiled-coil Protein Fibers for Metal Templation” April 2014, BS Biomolecular Science.
  
14. Min Dai, “Protein Engineered Biomaterials” December 2013, PhD Materials Chemistry.
  
13. Joseph A. Frezzo, “Engineering the coiled-coil domain of Cartilage Oligomeric Matrix Protein for dual delivery of small molecules and nucleic acids” August 2013 MS Biomedical Engineering.
  
12. Jennifer Haghpanah, “The Design & Characterization of Protein Based Block Copolymers” November 2012, PhD Materials Chemistry.
  
11. Jinhui Zhao, “Synthesis of Protein Scaffolds for Cartilage Tissue Engineering” July 2012, BS Biomolecular Science.
  
10. Kinjal R. Mehta, “Engineering Proteins for Therapeutics and Biomaterials” May 2012, PhD Biomedical Engineering.
  
9. Susheel K. Gunasekar, “Biomaterials Design Using Alpha-Helical Proteins” May 2012, PhD Biomedical Engineering.

8. Peter James Baker, “Development of Novel Proteins for Biotechnological Applications” April 2011, PhD Biomedical Engineering.
7. Yan Mei Chan, “Investigating Protein•Protein Interactions of FnTm2 and tGCN5” June 2009, BS Biomolecular Science, MS Biomedical Engineering.
6. Man Xia Lee, “Engineering Proteins with Unnatural Amino Acids” September 2008, BS Biomolecular Science.
5. Åsa Ronkvist, “Cutinase Hydrolytic Activity of Poly(Vinyl Acetate) and Poly(Ethylene Terephthalate)” December 2008, PhD Chemical Engineering.
4. Anita (Yuhua) Zhu, “Incorporation of fluorinated phenylalanine groups into histone acetyltransferase” August 2007, BS/MS Biomolecular Science.
3. Kunal A. Shah, “Novel approaches to protein based drug delivery vehicles and their potential in tissue engineering copolymer scaffolds” January 2007, BS Chemistry/Biomedical Science.
2. Wan Wen Zhu, “Studies on the influence of 5', 5', 5'-trifluoroleucine on chloramphenicol acetyltransferase stability and the incorporation of *p*-fluorophenylalanine into phosphotriesterase” June 2006, BS Chemistry.
1. Tatyana Panchenko, “Incorporation of fluorinated amino acid analogs into chloramphenicol acetyltransferase and histone acetyltransferase, tGCN5: Structural and functional analysis” June 2006, BS/MS Chemistry.

### **SERVICE ON OTHER DISSERTATION COMMITTEES**

- Li Tan Stony Brook University PhD 2014
- Fang-Chi Hsu NYU-Poly MS 2013
- Sade Ruffin PhD candidate NYU-Poly
- Anne Chudolij Khuong PhD candidate NYU-Poly
- Qin Xu, NYU-Poly PhD 2013
- Vandan Shah NYU-Poly MS 2012
- Josh Avins Columbia University PhD 2010
- Asya Bakhtina NYU-Poly PhD 2007
- Bo Chen NYU-Poly PhD 2007
- Wondong Cho NYU-Poly MS 2006
- David Fedder NYU-Poly PhD 2013
- Manoj Ganesh NYU-Poly PhD 2012
- Nancy Hom NYU PhD 2011
- Jun Hu NYU-Poly PhD 2009
- Yang Hu NYU-Poly PhD 2012
- Vipul Jain NYU-Poly PhD 2006
- Ursula Koniges PhD candidate NYU-Poly
- Jeannine Larrieux NYU-Poly PhD 2009
- Chong Li PhD candidate NYU-Poly
- Geng Li NYU-Poly PhD 2009
- Arthur Martin NYU-Poly PhD 2006
- Yaniv Ravee NYU-Poly MS 2009
- Stephen Spinella PhD candidate NYU-Poly

- Perry Tiberio MD, SUNY Downstate PhD 2012
- Sonit Tomar NYU-Poly PhD 2006
- Kodandaraman Viswanathan NYU-Poly PhD 2010
- Jun Yang PhD candidate NYU-Poly
- Lei Zhang PhD candidate CCNY

## **FELLOWSHIPS & AWARDS TO STUDENTS (122)**

2015-2017 Teagle Fellowship to Chappel Sharrock  
 2015 Weschler Summer Internship to Teeba Jihad  
 2015 Summer Honors Program to Jing Chen  
 2015 NSF REU to Cynthia Xu  
 2015 NSF REU to Raymond Chen  
 2015 NSF MRSEC REU to Kyle Okino  
 2015 Omega Chi Epsilon Award for chemical engineering student for excellence in scholarship, leadership and service to Raymond Chen  
 2015 Professor Turner Alfrey Prize to Haresh More  
 2015 Simeon Gang Award for engineering technology in living systems to Cynthia Xu  
 2015 Albert E. Sobel Award senior for outstanding performance in biochemistry to Kevin Zhang  
 2015 Reasenberg Award for outstanding original research for undergraduate to Michael Yang  
 2015 Shapiro Award—best 3<sup>rd</sup> year chemistry PhD student to Andrew Olsen  
 2015 3<sup>rd</sup> NYU-Poly Research Expo Award 3<sup>rd</sup> place to Joe Frezzo and Carlo Yuvienco  
 2015 Annual Research Day Travel Award to Lindsay Hill  
 2014-2016 Teagle Fellowship to Edward Klementowicz  
 2014-2016 Teagle Fellowship to Patrick Gryczka  
 2014 Wechsler Summer Internship to Michael Lupo  
 2014 2<sup>nd</sup> NYU-Poly Research Expo Award 2<sup>nd</sup> place to Carlo Yuvienco, Rudy Jacquet and Ching-Yao Yang  
 2014 Praxis Summer Internship to Grace Choi  
 2014 NSF MRSEC REU to Ja-Shin (Justine) Wu  
 2014 Thompson-Bartlett Fellowship to Cynthia Xu  
 2014 American Assoc Pharm Sci Grad Student Symposium Awardee to Haresh More  
 2014 Ward Award—best undergraduate thesis in Chemistry to Jennifer Sun  
 2014 Irving Skeist Award for best PhD thesis to Min Dai  
 2014 Simeon Gang Award for engineering technology in living systems to Raymond Chen  
 2014 Albert E. Sobel Award senior for outstanding performance in biochemistry to Michael Lupo  
 2014 Reasenberg Award for outstanding original research for undergraduate to Kevin Zhang  
 2014 Shapiro Award—best 3<sup>rd</sup> year chemistry PhD student to Ching-Yao Yang  
 2014 ARO URAP Program to Raymond Chen  
 2014 ARO URAP Program to Michael Yang  
 2014 Summer Honors Program to Kevin Zhang  
 2014 MACUB Research Award to Michael Lupo  
 2014 MACUB Research Award to Ekta Sharma  
 2014 MACUB Research Award to Jennifer Sun  
 2014-2015 NSF AMPS Fellowship to Joseph Frezzo  
 2013 ARO URAP to Kevin Zhang  
 2013 1<sup>st</sup> NYU-Poly Research Expo Award 2<sup>nd</sup> place to Carlo Yuvienco, Jennifer Sun and Andrew Olsen  
 2013 SHPE Technical Paper Competition Awardee to Jennifer Sun  
 2013-2014 Teagle Fellowship to Sarah Appelbaum  
 2013 End of Year Chemical Biology Symposium Speaker to Rudy Jacquet

2013 ARO URAP to Jennifer Sun  
 2013 Summer Honors Program to Raymond Chen  
 2013 Summer Honors Program to Kevin Zhang  
 2013 Wechsler Summer Internship to Michael Lupo  
 2013 ARO Mentor for URAP to Jasmin Hume  
 2013 Shapiro Award—best 3<sup>rd</sup> year chemistry PhD student to Jasmin Hume  
 2013 Irving Skeist Award for best PhD thesis to Jennifer Haghpanah  
 2013 Reasenberg Award for outstanding original research for undergraduate to Jennifer Sun  
 2012-2013 NSF AMPS Fellowship to Joseph Frezzo  
 2012 Excellence in Graduate Polymer Research Symposium to Carlo Yuvienco  
 2012 MACUB Research Award to Navjot Singh  
 2012 Graduate Student Presentation Award for the Peptides: Chemistry and Biology Gordon  
 Research Conference, Ventura, CA to Min Dai  
 2012 Young Researcher's Symposium Poster Award at Brookhaven Natl. Lab to Jasmin Hume  
 2012 Finalist in TWC Super Connector Search to Jasmin Hume  
 2012 Shapiro Award—best 3<sup>rd</sup> year chemistry PhD student to Haresh More  
 2012 Ward Award—best undergraduate thesis in Chemistry to Jinhui Zhao  
 2012 Outstanding Graduate Award—best undergraduate at NYU-Poly to Jinhui Zhao  
 2012 ARO URAP to Jennifer Sun  
 2012 Lombardino Summer Internship to Jennifer Sun  
 2012 Summer Honors Program to Navjot Singh  
 2012 Summer Honors Program to Jinhui Zhao  
 2012 Summer Honors Program to Kareem Rayn  
 2012-2014 Teagle Fellowship to Priya Chacko  
 2011-2013 Teagle Fellowship to Heejoo Him  
 2011 Wechsler Award to Navjot Singh  
 2011 Summer Honors Program to Jinhui Zhao  
 2011 Summer Honors Program to Kareem Rayn  
 2011 NSF MRSEC REU to Chris Inoue  
 2011 Irving Skeist Award for best PhD thesis to Peter Baker  
 2011 Research Day Poster Award SUNY Downstate Medical Center to Kinjal Mehta  
 2011-2013 NSF AMPS Fellowship to Jasmin Hume  
 2011 Outstanding First Year in Materials Chemistry PhD Program to Jasmin Hume  
 2010-2012 Dreyfus Fellowship to Jinhui Zhao  
 2010 Research Day Poster Award SUNY Downstate Medical Center to Peter Baker  
 2010 Professor Turner Alfrey Prize to Susheel Gunasekar  
 2010 NCI/NIH Poster Award to Carlo Yuvienco  
 2010 Wechsler Award to Jinhui Zhao  
 2010 Summer Honors Program to Jinhui Zhao  
 2009-2011 Dreyfus Fellowship to Maurica Lewis  
 2009-2012 NSF AMPS Fellowship to Carlo Yuvienco  
 2009-2011 Dreyfus Fellowship to Maurica Lewis  
 2009-2010 Dreyfus Fellowship to Robert Lorenzini  
 2009 Best Thesis in Chemistry Award to Yan Mei Chan  
 2009 Benjamin Cummings/MACUB Research Award to Yan Mei Chan  
 2009 NSF CRAW Fellowship to Yan Mei Chan  
 2008-2012 NSF AMPS Fellowship to Jennifer Haghpanah  
 2008-2011 NSF AMPS Fellowship to Peter J. Baker  
 2008 Polytechnic Institute Summer Undergraduate Fellowship to Wah Yan  
 2008 Roland Award for best thesis in Chemistry to Mandy Lee

2008 Simeon Gang Award for engineering technology in living systems to Mandy Lee  
 2008 Dreyfus Teaching Fellow to Wendy Hom  
 2008 NSF CRAW Fellowship to Wendy Hom  
 2008 Wechsler Summer Internship to Javi Balroop  
 2008 Polytechnic Institute Summer Undergraduate Fellowship to Hanna Bara  
 2008 Lombardino Summer Internship to Fong Bell  
 2008 Dreyfus Teaching Fellow to Yan Mei Chan  
 2008 Sobel Award for Outstanding student in Biochemistry to Yan Mei Chan  
 2008 Reasenbergs - undergraduate in chemistry for outstanding research to Yan Mei Chan  
 2008 Outstanding First Year in Materials Chemistry PhD Program to Min Dai  
 2008 Graduate Student Award in Environmental Chemistry to Jennifer Haghpanah  
 2008 RAISE Fellow to Carlo Yuvienco  
 2008 MACUB Poster Award to Carlo Yuvienco  
 2007-8 NSF CRAW Fellowship to Mandy Lee  
 2007 Benjamin Cummings/MACUB Research Award to Anita Zhu  
 2007 Polytechnic Institute Summer Undergraduate Fellowship to Anita Zhu  
 2007 Ward Award– best undergraduate thesis in Chemistry to Anita Zhu  
 2007 ACS Moissan Summer Undergraduate Fellowship in Fluorine Chemistry to Mandy Lee  
 2007 Reasenbergs - undergraduate in chemistry for outstanding research to Mandy Lee  
 2007 Hancock Memorial Green Chemistry Award to Jennifer Haghpanah  
 2007 Othmer Summer Internship to Wendy Hom  
 2007 Polytechnic Institute Summer Undergraduate Fellowship to Hanna Barra  
 2007 Lombardino Summer Internship to Yan Mei Chan  
 2006-2010 Society of Plastic Engineers Award to Jennifer Haghpanah  
 2006 Sobel Award- undergraduate with outstanding achievement in biochemistry to Tatyana Panchenko  
 2006 Ward Award–best undergraduate thesis in Chemistry to Tatyana Panchenko  
 2006 Outstanding Graduate Award –best undergraduate at Polytechnic Institute to Tatyana Panchenko  
 2006 Reasenbergs - undergraduate in chemistry for outstanding research to Wan Wen Zhu  
 2006 Gang Award- undergrad research involving engineering technology in living systems to Kunal Shah  
 2006 Student Activities Gold Award to Kunal Shah  
 2006 Lombardino Summer Internship to Mandy Lee

## **COURSES TAUGHT**

### **Organic Chemistry**

CM2213 Fall 2006 (couple of lectures), CM2213 Fall 2010, Fall 2013 (2 sections)  
 CM2223 Spring 2011, 2014

### **Organic Chemistry Recitation**

CM4167 Fall 2010, 2013 CM471X Spring 2011, 2014

### **Seminar in Materials Chemistry Course**

CM9731 Fall 2010, Fall 2012

### **Advanced Topics in Biochemistry**

CM954I Spring 2006

### **Protein Engineering**

BE/CM9433 Spring 2007, Spring 2008, Spring 2009, Spring 2012, Spring 2013, Fall 2014

### **Genetics**

BMS3114 Fall 2005, Fall 2007, Fall 2008, Fall 2011, Fall 2012

## COMMITTEE AND PROFESSIONAL SERVICE

### 1. INTRAMURAL AND EXTRAMURAL SERVICE

#### a. Intramural (Departmental & University since 2005)

- 2014-present
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - ii) Admissions Committee for PhD Program
  - iii) Executive Committee for MRSEC
  - iv) NYAS Faculty Liaison for Science Alliance
  - v) POLY WEST panelist
  - vi) Invent Empower Womensphere Summit panelist
  - vii) NYU STEP Work Life Balance Panel
  - viii) Women's Leadership Committee at NYU
- 2013-2014
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - ii) Admissions Committee for PhD Biomedical Engineering
  - iii) Advisor for Polytechnic ACS student Chapter
  - iv) Executive Committee for MRSEC
  - v) NYAS Faculty Liaison for Science Alliance
  - vi) POLY WEST panelist
  - vii) NYAS and NYWIS panelist
  - viii) Panel member for NSF I-Corps Information Sessions (3X in 2013)
  - ix) GOALS mentor for Intrepid Museum
- 2012-2013
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - ii) Admissions Committee for Biomedical Engineering Program
  - iii) Advisor for Polytechnic ACS student Chapter
  - iv) FACE—a research group of NYUDS, NYUMC, NYU-Poly
  - v) Executive Committee for MRSEC
  - vi) NYAS Faculty Liason for Science Alliance
  - vii) Venture Fellows Program Participant through NYU STERN
  - viii) POLY WEST panelist
- 2011-2012
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - ii) Admissions Committee for Biomedical Engineering Program
  - iii) Advisor for Polytechnic ACS student Chapter
  - iv) FACE—a research group of NYUDS, NYUMC, NYU-Poly
  - v) Executive Committee for MRSEC
  - vi) NYAS Faculty Liason for Science Alliance
- 2010-2011
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - ii) Admissions Committee for Biomedical Engineering Program
  - iii) Advisor for Polytechnic ACS student Chapter
  - iv) FACE Center of Excellence—a research group of NYUDS, NYUMC, NYU-Poly
- 2010-2011
- v) Committee for NYU MDI Faculty Search
  - vi) NSF REU Faculty Advisor
  - vii) Executive Committee for MRSEC
  - viii) NYAS Faculty Liason for Science Alliance
- 2009-2010
- i) Director of Materials Chemistry PhD and Chemistry MS program recruitment

- ii) Admissions Committee for Biomedical Engineering Program
  - iii) Advisor for Polytechnic ACS student Chapter
  - iv) FACE—a research group of NYUDS, NYUMC, NYU-Poly
- 2008-2009
- i) Coordinator, Seminar Series for Chemistry Program
  - ii) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - iii) Admissions Committee for Biomedical Engineering Program
  - iv) Advisor for Polytechnic ACS student Chapter
  - v) FACE --a research group of NYUDS, NYUMC, NYU-Poly
- 2007-2008
- i) Coordinator, Seminar Series for Chemistry Program
  - ii) Othmer Institute for Interdisciplinary Studies Junior Fellow
  - iii) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - iv) Admissions Committee for Biomedical Engineering Program
  - v) NYAS/Polytechnic Institute Initiatives
- 2006-2007
- i) Initiatives for Health and Wellness Research at Polytechnic
  - ii) Coordinator, Seminar Series for Chemistry Program
  - iii) Othmer Institute for Interdisciplinary Studies Junior Fellow
  - iv) Director of Materials Chemistry PhD and Chemistry MS program recruitment
  - v) Admissions Committee for Biomedical Engineering Program
- 2005-2006
- i) Participant of the Gold Team Assessment for Education and Research Focus at Polytechnic Institute
  - ii) Coordinator, Seminar Series for Chemistry Program
  - iii) Co-chair of Materials Chemistry PhD program recruitment
  - iv) Provost Search
  - v) Vice President of Research Search

**b. Extramural (since 2005)**

***i. Professional Activities & Symposia Organized (National and International)***

- 2015
- i) outside tenure reviewer Japan
  - ii) AAAS Marion Milligan Mason Award reviewer
  - iii) NSF panelist for Molecular Probes for Biological Processes
  - iv) Grant reviewer for Kentucky Science & Engineering Foundation  
Kentucky Science & Technology Corporation
  - v) Grant reviewer for Center for Translational and Basic Research (CTBR) at  
Hunter College, CUNY
- 2014
- i) reviewer for NIHA12013168: Adjuvant Discovery Program
  - ii) outside tenure reviewer US
  - iii) NSF panelist for DMR-REU programs
- 2013
- i) Ojima Symposium for Fluorine chemistry ACS National Meeting
  - ii) reviewer for German Research Foundation (DFG)
- 2012
- i) Ad hoc reviewer for NSF CAREER proposal
  - ii) 5<sup>th</sup> Annual Advances in Biomolecular Engineering Symposium NYAS  
Organizer

- 2011
- i) Bioinspired Self-Assembly of Macromolecules Symposium for the ACS National Meeting in Anaheim, CA
  - ii) Exploring Biological Interfaces Workshop, San Juan, Puerto Rico
  - iii) 2011 DFG-NSF Research Conference, New York, NY
  - iv) Reviewer for Cottrell Scholar Award
- 2010
- i) 4<sup>th</sup> Annual Advances in Biomolecular Engineering: Protein Design Symposium NYAS/Polytechnic Institute, Organizer and Session Chair
  - ii) ARO Grant reviewer
  - iii) Ad hoc NSF grant reviewer CHE
- 2009
- i) 3<sup>rd</sup> Annual Advances in Biomolecular Engineering: Protein Design Symposium NYAS/Polytechnic Institute, Organizer and Session Chair
  - ii) NSF DMR Panel Reviewer
  - iii) NIH Special Panel Reviewer
- 2008
- i) NYAS Chemical Biology Discussion Group Seminar Organizer and Chair
  - ii) Cooperative Bioactive Systems Symposium NYAS/Polytechnic Institute, Organizer and Session Chair
  - iii) Session Chair for 40th MARM, Queensborough Community College
  - iv) Session Chair for 2008 Bioorganic GRC, Andover, NH.
  - v) 2<sup>nd</sup> Annual Advances in Biomolecular Engineering: Protein Design Symposium NYAS/CCNY/Polytechnic Institute, Organizer and Session Chair
  - vi) ACS PRF GCI grant Reviewer
  - vii) CCNY external grant Reviewer
- 2007
- i) 1<sup>st</sup> Advances in Biomolecular Engineering: Protein Design Symposium NYAS/Polytechnic Institute, Organizer and Session Chair
  - ii) CBRN Detection Seminar
  - iii) Session Chair and Poster Chair for the IUPAC Meeting on Macromolecules for a Sustainable, Safe and Healthy World, Brooklyn, NY.
  - iv) FONDECYTE external grant reviewer
- 2006
- i) Session Chair for the Polymer Division 232<sup>nd</sup> ACS National Meeting, San Francisco, CA.

## 2. OUTREACH (since 2005)

- 2013 Teagle sponsored Bioengineering Science Summer Course for STEP
- 2013-present Pinkerton sponsored ASPIRE
- 2012 Teagle sponsored Life Science Summer Course for STEP
- 2011 Teagle sponsored *STEMulus Summer Program* for UAI High School Students
- 2010 CTY Biotechnology and Bioengineering for High School Students
- 2010 Summer High School Research Advisor
- 2009 Summer High School Research Advisor
- 2008-Present Dreyfus and Teagle Sponsored ChemBioTechnology Lab: taught 7-10 grade underprivileged girls (~75/year) <http://research.poly.edu/~cbtl/index.php?x=main>
- 2008 Chemistry Club for High School Teachers Lecturer
- 2008 Summer High School Research Advisor
- 2008 CBAS Summer High School Research Program Participant



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2007	Edward J. Murrow High School Research Advisor
2007	Summer Research Seminar Series for Undergraduates at NYU-Poly
2007	Principle Scholars Lecturer for High School Students, David Packard Center for Technology and Alliance
2006	YES Faculty Participant (sponsored high school students from the program)
2005-Present	Lab Tours for High School Students Interested in NYU-Poly

### **3. SCHOLARLY REVIEWS**

Angewandte Chemie International Edition, Journal of the American Chemical Society, Biochemistry, ChemBioChem, Chemistry of Materials, Chemical Science, ACS Catalysis, ACS Chemical Biology, ACS Synthetic Biology, Molecular BioSystems, Biomacromolecules, Biomaterials Sciences, Frontiers in Chemistry, Macromolecules, Biopolymers, Journal of Agricultural and Food Chemistry, Applied Biochemistry and Biotechnology, Applied Microbiology and Biotechnology, Langmuir, Applied and Environmental Microbiology, Biocatalysis and Biotransformation, Biochemical Engineering Journal, Bioorganic Medicinal Chemistry Letters, Nanoscale, Nature Nanotechnology, Nature Chemical Biology, Yeast, Protein Engineering Design and Selection, Polymer Reviews, PLOSOne, Journal of Medicinal Chemistry, Journal of Physical Chemistry, Synthetic Communications, Wiley Encyclopedia of Chemical Biology, Journal of Colloid and Interface Science