

DAN LUO, PH.D. Professor

Department of Biological and Environmental Engineering
Cornell University

226 Riley-Robb Hall
Cornell University
Ithaca, New York 14853-5701

Telephone: 607-255-8193
E-mail: DL79@cornell.edu
Webpage: LuoLabs.bee.cornell.edu

Education

- **Postdoctoral Associate**
 - School of Chemical Engineering, Cornell University, Advisor: W. Mark Saltzman, 1998-2001
 - Department of Molecular Genetics, The Ohio State University, Columbus, Ohio, Advisor: Mark Muller, 1997-1998
- **Ph.D.** Molecular, Cellular, and Developmental Biology
The Ohio State University, Columbus, Ohio, USA, Aug. 1997
(Thesis topics: DNA-Topoisomerase interactions, cancer chemotherapy, and DNA networking. Advisor: Mark Muller)
- **B.S.** Department of Biological Sciences
University of Science and Technology of China, Hefei, Anhui, P. R. of China, 1989
(Thesis topics: Molecular dynamics computer simulation. Advisor: Yun-Yu Shi)

Employment

- **Professor** **2011 - Current**
Department of Biological and Environmental Engineering, Cornell University, Ithaca, New York
- **Associate Professor** **2007 - 2010**
Department of Biological and Environmental Engineering, Cornell University, Ithaca, New York
- **Assistant Professor** **2001 - 2007**
Department of Biological and Environmental Engineering, Cornell University, Ithaca, New York
- **Faculty Member**
 - Kavli Cornell Center for Nanoscale Science, since 2013
 - Cornell Center for Materials Research (CCMR), since 2005
 - Nanobiotechnology Center, Cornell University, since 2002
- **Graduate Field Faculty**
 - The Field of Biomedical Engineering, Cornell University, since 2004
 - The Field of Biological Engineering, Cornell University, since 2001

Professional Honors, Achievements and Recognitions

- “Cornell University Outstanding Educator” for having most influenced a Merrill Presidential Scholar, April 2015
- Awarded “Thousand Talents Plan (Innovation B, Chinese Academy of Sciences)”, Chinese Government, 2014
- Guest Professor, Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy of Sciences, 2014
- Visiting Professor, Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, 2014
- Elected as a College Fellow, American Institute of Medical and Biological Engineering (AIMBE), 2013
- Plenary Speaker, the 1st International Symposium on Multi-Omics and Nano Biotechnology for Human Disease Research, Seoul, South Korea, Nov. 2013
- Plenary Speaker, the 3rd International Soft Matter Conference, Rome, Italy, Sept. 2013
- Plenary Speaker, the 29th Annual Meeting for the Japanese Society of Drug Delivery System (JSDDS), Kyoto, Japan, July, 2013
- CALS Award for Outstanding Accomplishments in Basic Research, 2012
- Plenary speaker, 2nd Nano Today Conference, Waikoloa, Hawaii, Dec 2011
- Bill and Melinda Gates Foundation Point-of-Care Diagnostics Grand Challenge Award recipient, 2011
- *Journal of Materials Chemistry* Editorial Board Award for “in recognition of his research in developing new materials for sensing, imaging, and biotechnology”, 2010
- “Cornell University Outstanding Educator” for having most influenced a Merrill Presidential Scholar, 2010
- Featured as one of the "Nanotechnology Thought Leaders" on the website "azonano.com", 2009
- Plenary speaker, Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Mayaguez, Puerto Rico, March 2010
- University of Illinois Distinguished Speaker Series Lecture, 2009
- SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities, April 2008
- “Cornell University Outstanding Educator” for having most influenced a Merrill Presidential Scholar, April 2008
- New York State Foundation for Science, Technology and Innovation (NYSTAR) Faculty Development Program Award, 2007
- Cornell Provost’s Award for Distinguished Scholarship, 2007
- National Science Foundation CAREER Award, 2006
- Recognized as one of the “Cornell inventors for contributions to the university and the world” during fiscal year 2005-2006
- R&D’s “Most innovative products of 2006" in the Inaugural MicroNano 25 competition, 2006
- New York State Foundation for Science, Technology and Innovation (NYSTAR) Technology Transfer Incentive Program Award, 2005
- Selected by the National Academies as 1 of 100 scientists and engineers nation wide to attend the 3rd Annual National Academies Keck Futures Initiative conference “The Genomic Revolution: Implications for Treatment and Control of Infectious Disease”. Nov. 2005

- Selected by the National Academies as 1 of 100 scientists and engineers nation wide to attend the 2nd Annual National Academies Keck Futures Initiative conference “Designing Nanostructures at the Interface between Biomedical and Physical Systems”. Nov. 2004
- Invited to be a co-organizer for NATO’s Advanced Research Workshop (Kiev) on Integrated Nanosystem in Biosensing and Biodetection. May 2005
- “Cornell University Outstanding Educator” for having most influenced a Merrill Presidential Scholar, May 2003
- Honorary member, Alpha Epsilon (The Honor Society of Agricultural, Food, and Biological Engineering), 2002

Other Professional Achievements, Activities, and Services

As an Associate Editor or Editorial Board Member

- Associate Editor, *Synthetic and System Biotechnology* (2015-present)
- Editorial Board Member, *Nano Research* (2014 – present)
- Associate Editor, *J. of Biomedical Nanotechnology* (2007- present)
- Guest Editor, *Advanced Drug Delivery Review* (2007)
- Editorial Board Member, *Nanomedicine* (2005 - present)
- Editorial Advisory Board, *Nano Today* (2006 - present)
- Editorial Board Member, *Nano Biomedicine and Engineering* (2009 - present)
- Editorial Board Member, *Nanomedicine: Nanotechnology, Biology and Medicine* (2009 - present)
- Editorial Board Member, *Current Nanoscience* (2009 – present)

As a Conference Chair (International and National)

- Session chair, MRS, Symposium XX, Boston, MA, Dec. 2009
- Symposium co-Chair, Advanced Delivery of Therapeutics: New Challenges for Materials, International Conference on Materials for Advanced Technology, 2009
- Conference co-Chair, Materials Today Asia Conference, Beijing, China, Sept. 2007
- Session Chair, World Congress on Bioengineering, Bangkok, Thailand, July 2007
- Session Chair, International Conference on Materials for Advanced Technologies, Singapore, July 2007
- Co-organizer for NATO’s Advanced Research Workshop on Integrated Nanosystem in Biosensing and Biodetection. Kiev, Ukraine, May 2005
- Symposium co-organizer, Material Research Society Fall 2003 Annual Meeting, Symposium on Biomaterials for Drug Delivery, Boston, Nov. 2003
- Symposium co-moderator (molecular conjugates) and Faculty member, American Society of Gene Therapy Annual Meeting, Washington D.C., June 2003
- Session Chair, International Conference on Nano and Micro Systems, Kunming, China, Aug. 2002
- Session Moderator, Special Symposium on Gene Delivery, Society For Biomaterials (SFB) and Biomedical Engineering Society (BMES), St. Paul, MN, Apr. 2001

As a Peer Reviewer (International and National)

- Ad hoc journal reviewer for:
 1. *ACS Nano*
 2. *ACS Applied Materials & Interfaces*
 3. *Acta Biomaterialia*

4. *Advanced Materials*
 5. *Angewandte. Chem. Int. Ed.*
 6. *Biomacromolecules*
 7. *Biomaterials*
 8. *Biophysics Journal*
 9. *BioTechniques*
 10. *Biotechnology and Bioengineering*
 11. *Biotechnology Progress*
 12. *Gene Therapy*
 13. *IEEE Transaction on Nanotechnology*
 14. *Immunology*
 15. *JACS*
 16. *Journal of Biomaterials Science: Polymer Edition*
 17. *Journal of Controlled Release*
 18. *Lab-on-a-Chip*
 19. *Langmuir*
 20. *Macromolecules*
 21. *Molecular Cancer Therapeutics*
 22. *Molecular Pharmaceutics*
 23. *Nano Letters*
 24. *Nature*
 25. *Nature Biotechnology*
 26. *Nature Chemistry*
 27. *Nature Communication*
 28. *Nature Materials*
 29. *Nature Nanotechnology*
 30. *Pharmaceutical Research*
 31. *Polymer*
 32. *Science*
 33. *Small*
 34. *Vaccine*
- Panel review member:
 1. *US Department of Agriculture, National Research Initiatives, 2014*
 2. *DOD Biomaterials Review Panel, July 2011*
 3. *NIH bio-sensing Review Panel, March 2011*
 4. *Division of Engineering, US National Science Foundation, June 2009*
 5. *Division of Engineering, US National Science Foundation, Nov. 2007*
 6. *Site Review Panel, Science Foundation Ireland, Oct. 2007*
 7. *Division of Engineering, US National Science Foundation, May 2007*
 8. *Study Section on National Research Program for Genomic Medicine Taiwan, Dec. 2006*
 9. *US Department of Agriculture, National Research Initiatives, May 2006*
 10. *US Department of Agriculture, National Research Initiatives, May 2005*
 11. *US Department of Agriculture, National Research Initiatives, May 2004*
 12. *Bioengineering and Environmental Systems, Division of Engineering, US National Science Foundation, March 2000*

13. *Bioengineering and Environmental Systems, Division of Engineering, US National Science Foundation, July 2000*
- Ad hoc grant proposal reviewer for:
 1. *Netherlands Foundation for Fundamental Research on Matter, 2012*
 2. *Singapore ASTAR, 2011, 2012*
 3. *Chinese National Science Foundation, 2010*
 4. *Science Foundation Ireland, 2009*
 5. *Natural Sciences and Engineering Research Council of Canada (NSERC), 2007*
 6. *Science Foundation Ireland, 2007*
 7. *Singapore Agency for Science, Technology and Research Award, 2007*
 8. *French Muscular Dystrophy Association, 2007*
 9. *German Science Foundation, 2006*
 10. *Singapore Science & Engineering Research Council, Agency for Science, Technology & Research, 2006*
 11. *Kentucky Science and Engineering Foundation, 2005*
 12. *US National Science Foundation, Chemistry, Division of Mathematical and Physical Sciences, April 2005*
 13. *Singapore Biomedical Research Council, 2004*
 14. *Singapore National Medical Research Council, 2004*
 15. *National University of Singapore, 2003*
 16. *New Zealand National Science Foundation, 2003*
 17. *Armenia National Science and Technology Foundation. 2002 and 2003*
 - Conference Abstract reviewer
 1. *The 3rd WACBE World Congress on Bioengineering, 2007*
 2. *Materials Research Society (MRS), Nov. 2003*
 3. *American Society of Gene Therapy (ASGT), Molecular Conjugates Section, May 2006 and May 2003*
 4. *Society for Biomaterials Annual Meeting (SFB), Oct. 2000*

As a Committee Member (University and Departmental)

- Member, Master of Engineering Advisory Committee, 2014-present
- Member, Rebranding Biological Engineering, 2013
- Member, Cornell Financial Conflict of Interests Committee, since 2011-present
- Member, Cornell Churchill Scholarship Endorsement Committee, since 2009 - present
- Member, Cornell Graduate Education Assessment Committee, 2010
- Chair, subcommittee on university materials transfer policies, since 2009-present
- Member, Cornell Local Advisory Committee, since 2008-2010
- Member, Technology Transfer Advisory Committee, since 2007-present
- Member, Cornell Undergraduate Biology Curriculum Task Force, 2007
- Member, Nanobiotechnology Center Director Search Committee, Dec. 2005
- Member, Biological Engineering and Biomedical Engineering Laboratory Teaching Committee, June 2005
- Member, Life Science Technology Building's BME subcommittee, 2002

- Member, Graduate Coordinating Committee, Department of Biological and Environmental Engineering, Cornell University, since Dec. 2001-present

Publications

Peer-Reviewed Papers (excluding abstracts and conference proceedings)

1. D. An, Y.W. Ji, A. Chiu, A. Y.C. Lu, W. Song, L. Zhai, L. Qi, D. Luo, M.L. Ma, Developing robust, hydrogel-based, nanofiber-enabled encapsulation devices (NEEDs) for cell therapies, *Biomaterials*, **37**, 40-48 (2015)
2. S. Hamada, S. Tan, D. Luo, Nanoparticle Crystalization DNA-bonded “atoms” *Nature Materials* **13**, 121-122 (2014)
3. S.J. Tan, J.S. Kahn, T.L. Derrien, M.J. Campolongo, M. Zhao, D-M. Smilgies, D. Luo, Crystallization of DNA-Capped Gold Nanoparticles in High-Concentration, Divalent Salt Environments, *Angew. Chem. Int. Ed.* **53**, 1316–1319 (2014)
4. D.Y. Yang, M.R. Hartman, T.L. Derrien, S. Hamada, D. An, K.G. Yancey, R. Cheng, M.L. Ma, D. Luo, DNA Materials: Bridging Nanotechnology and Biotechnology, *Accounts of Chemical Research*, **47**, 1902-1911 (2014)
5. Y.H.Roh, K.Lee, J.J. Ye, D. Luo, Multivalent DNA-Based Vectors for DNA Vaccine Delivery, *DNA Vaccines: Methods and Protocols*, **1143**, 159-179 (2014)
6. D. Yang, S. Peng, M.R. Hartman, T. Gupton-Campolongo, E.J. Rice, A.K. Chang, Z. Gu, G.Q. Lu, D. Luo, Enhanced transcription and translation in clay hydrogel and implications for early life evolution, *Scientific Reports*, **3**, 3165, doi: 10.1038/srep03165 (2013)
7. M. Hartman, R. Ruiz, S. Hamada, C. Xu, K. Yancey, Y. Yu, W. Han, D. Luo, Point-of-care nucleic acid detection using nanotechnology, *Nanoscale*, **5**, 10141-10154 DOI: 10.1039/C3NR04015A (2013)
8. T. Tran, J. Cui, M. Hartman, S. Peng, H. Funabashi, D. Yang, J. March, JT. Lis, H. Cui, D. Luo, A Universal DNA-Based Protein Detection System *J. Am. Chem. Soc.* **135**, 14008-14011 (2013)
9. M. Hartman, D. Yang, T. Tran, K. Lee, J. Kahn, P. Kiatwuthinon, K. Yancey, O. Trotsenko, S. Minko, D. Luo (2013) Thermostable Branched DNA Nanostructures as Modular Primers for Polymerase Chain Reaction *Angew. Chem. Int. Ed.*, **52**. 8699-8702 (2013)
10. X. Xu, J. Anand, S. Peng, D. Luo, M. Wu, CY. Hui, Gravity and Surface Tension Effects on the Shape Change of Soft Materials *Langmuir*, **29**, 8655-867 (2013)
11. J.B. Lee, S. Peng, D. Yang, Y.H. Roh, H. Funabashi, N. Park, E.J. Rice, L. Chen, R. Long, M. Wu, D. Luo, A mechanical metamaterial made from a DNA hydrogel. *Nature Nanotechnology*, **109**, 816-820 (2012)
12. S. Peng, T.L. Derrien, J. Cui, C. Xu, D. Luo From cells to DNA materials. *Materials Today*, **15**, 190-194 (2012).
13. R. Ruiz, P. Katwuthinon, J.S. Kahn, Y.H. Roh, D. Luo Cell-Free Protein Expression from DNA-Based Hydrogel (P-Gel) Droplets for Scale-Up Production. *Industrial Biotechnology*, **8**, 372-377 (2012)
14. Y.H. Roh, J.H. Park, J Ye, .J.E. Lee, D. Luo Systematic studies of UV stability and photopolymerization efficiency of DNA-based nanomaterials. *ChemPhysChem*, **13**, 2517-2521 (2012)
15. A.N. Sharma, D. Luo, M.T. Walter Hydrological Tracers Using Nanobiotechnology: Proof of Concept. *Environmental Science & Technology*, **46**, 8928-8936 (2012)

16. J. Yu, S. Peng, D. Luo, J.C. March In vitro 3D human small intestinal villous model for drug permeability determination. *Biotechnology and Bioengineering*, **109**, 2173-2178 (2012)
17. S. Chatterjee, J.B. Lee, N.V. Valappil, D. Luo, V.M. Menon, Probing Y-shaped DNA structure with time-resolved FRET. *Nanoscale*, **4**, 1568-1571 (2012)
18. Y. Lu, S. Peng, D. Luo, A. Lal, Low-concentration mechanical biosensor based on a photonic crystal nanowire array, *Nature Communications* **2**, 578, DOI: 10.1038/ncomms1587 (2011)
19. M. Campolongo, S. Tan, D. Smilgies, M. Zhao, Y. Chen, I. Xhangolli, D. Luo, W. Cheng, Crystalline Gibbs monolayers of DNA-capped nanoparticles at the air-liquid interface *ACS Nano* **5**, 7978-7985 (2011)
20. Y.H. Roh, R.C.H. Ruiz, S. Peng, J.B. Lee, D. Luo, Engineering DNA-based functional materials, *Chemical Society Reviews* DOI: 10.1039/C1CS15162B (2011)
21. S. Tan, M. Campolongo, D. Luo, W. Cheng, Building plasmonic nanostructures with DNA, *Nature Nanotechnology* **6**, 268-276 (2011)
22. S. Tan, P. Kiatwuthinon, Y.H. Roh, J. S. Kahn, D. Luo, Engineering nanocarriers for siRNA delivery, *Small* **7**, 841-856 (2011)
23. M. Campolongo, J.S. Kahn, W. Cheng, D. Yang, T. Campolongo, D. Luo, DNA-based adaptive materials for switching, sensing, and logic devices, *J. Materials Chemistry* **17**, 6113-6121(2011)
24. J.H. Sung, J.J. Yu, D. Luo, M.L. Shuler, J.C. March, Microscale 3-D hydrogel scaffold for biomimetic gastrointestinal (GI) tract model, *Lab on a Chip*, **3**, 389-392, (2011)
25. Y.H. Roh, J.B. Lee, P. Kiatwuthinon, M.R. Hartman, J.J. Cha, S.H. Um, D.A. Muller, D. Luo, DNAsomes: Multifunctional DNA-Based Nanocarriers *Small* **7**, 74-78 (2010) (DOI: 10.1002/smll.201000752)
26. M. Nishikawa; Y. Mizuno; K. Mohri; N. Matsuoka; S. Rattanakit; Y. Takahashi; H. Funabashi; D. Luo; Y. Takakura, Biodegradable CpG DNA hydrogels for sustained delivery of doxorubicin and immunostimulatory signals in tumor-bearing mice *Biomaterials* **32**, 488-494 (2011)
27. W. Cheng, M.R. Hartman, D. Smilgies, R. Long, M.J. Campolongo, R. Li, K. Sekar, C.Y. Hui, D. Luo, Probing in Real Time the Soft Crystallization of DNA-Capped Nanoparticles, *Angew. Chem. Int. Ed.* **49**, 380-384 (2010)
28. D.Y. Yang, M.J. Campolongo, T.N.N. Tran, R.C.H. Ruiz, J.S. Kahn, D. Luo, Novel DNA materials and their applications *Wiley Interdisciplinary Reviews-Nanomedicine and Nanobiotechnology*. **2**, 648-669 (2010)
29. Y.H. Roh, J.B. Lee, S.J. Tan, B. Kim, H. Park, E.J. Rice, Luo, D. Photocrosslinked DNA nanospheres for drug delivery. *Macromol. Rapid Comm.* **31**, 1207-1211 (2010).
30. M.J. Campolongo, S.J. Tan, J. Xu, D. Luo, DNA nanomedicine: Engineering DNA as a polymer for therapeutic and diagnostic applications. *Adv. Drug Delivery Rev.* **62**, 606-616 (2010)
31. J.B. Lee, A.S. Shai, M.J. Campolongo, N. Park, D. Luo, Three-dimensional structure and thermal stability studies of DNA nanostructures by energy transfer spectroscopy. *ChemPhysChem* **11**, 2081-2084 (2010).
32. R. Long, C.-Y. Hui, W. Cheng, M.J. Campolongo, D. Luo, Size effect on failure of pre-stretched free-standing nanomembranes. *Nanoscale Res. Letters* **5**, 1236-1239 (2010)

33. J.B. Lee, M.J. Campolongo, J.S. Kahn, Y.H. Roh, M.R. Hartman, D. Luo, DNA-based nanostructures for molecular sensing. *Nanoscale* **2**, 188-197 (2010).
34. S. Rattanakit; M. Nishikawa; H. Funabashi; D. Luo; Y. Takakura, The assembly of a short linear natural cytosine-phosphate-guanine DNA into dendritic structures and its effect on immunostimulatory activity *Biomaterials* **30**, 5701-5706 (2009)
35. W. Cheng, M.J. Campolongo, S.J. Tan, D. Luo, Freestanding Ultrathin Nanomembranes via Self-assembly. *Nano Today* **4**, 482-493 (2009)
36. N. Park, J.S. Kahn, E.J. Rice, M.R. Hartman, H. Funabashi, J. Xu, S.H. Um, D. Luo, High-yield cell-free protein production from P-gel, *Nature Protocols*, **4**, 1759-1770 (2009)
37. M. Campolongo, D. Luo, Drug delivery: Old polymer learns new tracts *Nature Materials*, **8**, 447-8 (2009)
38. J.B. Lee, Y.H. Roh, S. Um, H. Funabashi, W. Cheng, J.J. Cha, P. Kiatwuthinon, D.A. Muller, D. Luo, Multifunctional nano-architectures from DNA-based ABC monomers, *Nature Nanotechnology*, **4**, 430-436 (2009)
39. W. Cheng, M. J. Campolongo, J. J. Cha, S. J. Tan, C. C. Umbach, D. A. Muller, D. Luo, Free-Standing Nanoparticle Superlattice Sheets Controlled by DNA (Article), *Nature Materials*, **8**, 519-525 (2009)
40. N. Park, S. H. Um, H. Funabashi, J. Xu, D. Luo, A Cell-free Protein Producing Gel, (Article), *Nature Materials*, **8**, 432-437 (2009)
41. W. Cheng, N. Park, M.T. Walter, M.R. Hartman, D. Luo, Nanopatterning Self-Assembled Nanoparticle Superlattices by Molding Microdroplets (Cover Article) *Nature Nanotechnology*, **3**, 682-690 (2008)
42. L. Liu, K. Guo, J. Lu, S. Venkatraman, D. Luo, K. Ng, E. Ling, S. Moochhalad, Y. Yang, Biologically active core/shell nanoparticles self-assembled from cholesterol-terminated PEG-TAT for drug delivery across the blood-brain barrier, *Biomaterials*, **29**, 1509-1517 (2008)
43. C. A.H. Prata, Y. Li, D Luo, T.J. McIntosh, P. Barthelemy, and M.W. Grinstaff, A new helper phospholipid for gene delivery, *Chem. Commun.* 1566-1568 (2008)
44. C. A. H. Prata, X. Zhang, D. Luo, T.J. McIntosh, P. Barthelemy, and M.W. Grinstaff, Lipophilic Peptides for Gene Delivery, *Bioconjugate Chem*, **19**, 418-420 (2008)
45. J. Smith, B. Gao, H. Funabashi, R. Doan, T. Thua, D Luo, B. Ahner, T. S. Steenhuis, A. G. Hay, M.T. Walter, Pore-Scale Quantification of Colloid Transport in Saturated Porous Media *Environmental Science and Technology (ACS)* **42**, 517-523 (2008)
46. D. Sil, J. Lee, D. Luo, D. Holowka, and B. Baird, Trivalent ligands with rigid DNA spacers reveal structural requirements for IgE receptor signaling in RBL mast cells. *ACS Chemical Biology* **2**: 674-684. (2007)
47. S. Um, J. Lee, N. Park, S. Kwon, C. Umbach, D. Luo, Enzyme catalyzed assembly of DNA hydrogels, *Nature Materials* **5**, 797-801 (2006)
48. S. Um, J. Lee, S. Kwon, D. Luo, DNA nanobarcodes, *Nature Protocols* **1**, 995-1000 (2006)
49. Y. Li, D. Luo (invited author), Multiplexed molecular detection using encoded nanoparticles, *Expert Review of Molecular Diagnostics* **6(4)**, 567-574, (2006)
50. C.A.H. Prata, P. Barthelemy, Y. Li, D. Luo, T.J. McIntosh, Lee SJ, M.W. Grinstaff, Charge-resersible lipids for DNA delivery, *FASEB Journal* **20** (4): A73-A73, (2006)
51. D. Luo and W.M. Saltzman (invited authors), Thinking of Silica, **13** (7): 585-586 *Gene Therapy* (2006)

52. D. Luo (invited author), Nanotechnology and DNA delivery, *MRS Bulletin*, Sept. (2005)
53. Y. Li and D. Luo (invited author), High Throughput Codes for Molecular Detections: From Millimeter to Nanometer. *BioForum Europe*, (2005)
54. S. M. Stavis, J.B. Edel, Y. Li, K.D. Samiee, D. Luo, H.G. Craighead, Single-molecule mobility and spectral measurements in submicrometer fluidic channels *J. Appl. Phys.* **98**, 044903 (2005)
55. Y. Li, Y. Cu and D. Luo, DNA fluorescence nanobarcodes for multiplexed pathogen detection, *Nature Biotechnology* **23**, 885-889 (2005)
56. L. Moreau, P. Barthélémy, Y. Li, D. Luo, and M.W. Grinstaff, Nucleoside Phosphocholine Amphiphile for in vitro DNA transfection, *Molecular BioSystems* **1** (3), 260-4 (2005)
57. K.O. Freedman, J. Lee, Y. Li, D. Luo, V.B. Skobeleva, and P.C. Ke, Diffusion of Single Star-Branched Dendrimer-Like DNA, *J. of Phys. Chem. B.* **109**, 9839-9842 (2005)
58. S.M. Stavis, J.B. Edel, Y. Li, K.T. Samiee, D Luo and H.G. Craighead, Detection and identification of nucleic acid engineered fluorescent labels in submicrometer fluidic channels, *Nanotechnology*, **16**, s314-s323 (2005)
59. R. A. Gemeinhart, D. Luo, and W. M. Saltzman, Cellular fate of a modular DNA delivery system mediated by silica nanoparticles, *Biotechnology Progress*, **21**, 532-537(2005)
60. C.A.H. Prata, Y. Zhao, P. Barthélémy, Y. Li, D. Luo, T.J. McIntosh, S.J. Lee, and M.W. Grinstaff. Charge-reversal amphiphiles for gene delivery. *J Am Chem Soc* **126**(39): 12196-7 (2004)
61. Y. Li, Y.D. Tseng, S.Y. Kown, L. d'Espaux, J.S. Bunch, P.L. McEuen and D. Luo. Controlled assembly of dendrimer-like DNA. *Nature Materials*, **3**, 38-42 (2004).
62. D. Luo, E. Han, N. Belcheva and W. Mark Saltzman, A self-assembled, modular DNA delivery system mediated by silica nanoparticles *J. of Control. Release.* **95**, 333-341 (2004)
63. D. Luo. A new solution to improved gene therapy. *Trends in Biotechnology.* **22**, 101-103 (2004)
64. D. Luo. The road from biology to materials. *Materials Today*, **6**, 38-43 (2003)
65. D. Luo and W.M. Saltzman, *Somatic Cell and Molecular Genetics*, **27**, 1-3 (2002)
66. D. Luo, K. Haverstick, N. Belcheva, E. Han and W.M. Saltzman. Poly(ethylene glycol)-conjugated dendrimer for biocompatible and high efficient DNA delivery, *Macromolecules*, **35**, 3456-3462 (2002)
67. D. Luo and W.M. Saltzman. Enhancement of transfection by physical concentration of DNA at the cell surface, *Nature Biotechnology*, **18**, 893-895 (2000)
68. D. Luo and W.M. Saltzman. Synthetic DNA delivery systems, *Nature Biotechnology*, **18**, 33-37 (2000)
69. D. Luo, K. Woodrow-Mumford, N. Belcheva and W.M. Saltzman. Controlled DNA delivery systems, *Pharmaceutical Research*, **16**, 1299-1307 (1999)
70. F. Hung, D. Luo, M. Sauve, M.T. Muller and M. Roberge. Characterization of topoisomerase II-DNA interaction and identification of a DNA-binding domain by ultraviolet laser crosslinking, *FEBS Letters*, **380**, 127-132 (1996)

Books

71. Co-Editor, *Properties of Nanomaterials: a Comprehensive Reference*, Springer, (in preparation; expected date of publishing: Dec 2013)
72. D. Luo, Textbook: *Molecular and Cellular BioEngineering: Principles and Applications* In preparation (World Scientific Publishers)
73. D. Luo (Series Editor) Nano-materials, Pan Stanford Publishing, (2006-)
74. J. Y. Wong, etc. (D. Luo is one of the editors), *Architecture and Application of Biomaterials and Biomolecular Materials*, Symposium Proceedings, Publisher: Materials Research Society, ISBN: 1-55899-745-8, (2004).
75. D. Luo (Editor) and W.M. Saltzman (Editor). *Synthetic DNA Delivery Systems*. Co-published by Kluwer Academic Publishers and Landes Biosciences. ISBN: 0306477017, (2003)

Book Chapters

76. D. Luo (invited author), H. Funabashi, and S.H. Um: *Nucleic Acid Engineering: towards synthetic biology* in *Systems Biology and Synthetic Biology*, Wiley, 2009
77. D. Luo (invited author), Y. Cu, Y. Li and S. Um, Dendrimer-like DNA for DNA vaccination, in *DNA Vaccines*, Editor: W.M. Saltzman et al. ISBN 1-58829-484-6 (2006)
78. D. Luo (invited author) and Y. Li, Nucleic Acid Engineered Nanobiomaterials, in "*Handbook of Nanostructured Biomaterials and Their Applications in Nanobiotechnology*", Editor, H. S. Nalwa, American Scientific Publisher, ISBN 1588830330 (2005)
79. D. Luo (invited author), DNA delivery systems in "*McGraw-Hill Yearbook of Science and Technology*", pg. 93-95, 2003, an annual companion book to the "*McGraw-Hill Encyclopedia of Science and Technology*" McGraw-Hill, Inc. Publisher (2003)
80. D.C. Jaworski, A.C. LaDu, D. Luo, M.T. Muller and G.R. Needham. The role of Calreticulin in parasitic associations, *Acarology IX: Symposia*, Vol. 2, Editors: G.R. Needham, R. Mitchell, D.J. Horn and W.C. Welbourn (1999)

Patents

81. D. Luo, S. Tan and J. Kahn, A novel, general protein crystallization method (2011), invention disclosed
82. D. Luo and W. Cheng, Free-standing Ultra-thin nanoparticle membrane (2009), patent filed.
83. D. Luo and W. Cheng, Nanoparticle patterning (2009), patent filed.
84. D. Luo and Y. Roh, Photo-gel (2007), patent issued
85. D. Luo and S. Um, DNA-hydrogels, patent filed (2006)
86. D. Luo and H. Funabashi, A rolling-circle production of branched DNA. Patent pending (2006)
87. D. Luo and S. Um, A cell-free protein producing gel. Patent pending (2006)
88. D. Luo and Y. Li, DNA nanobarcodes. Patent filed (2006)
89. D. Luo and Y. Li. Molecular Assembly of Dendrimer-Like DNA Nanoparticles. Disclosure filed (D-3075), Cornell University Research Foundation. Patent pending (April 2002). *US Patent No. 7,223,544* (May, 2007)
90. D. Luo, E. Han, N. Belcheva and W.M. Saltzman. Method of enhancing the delivery of nucleic acids using nanoparticles. *US Patent No. 6,319,715* (Nov. 2001)
91. D. Luo, K. Woodrow-Mumford, N. Belcheva, H. Shen and W.M. Saltzman. DNA controlled release systems. *US Patent App. No. 09/616,711*. (2000)

92. D. Luo, N. Belcheva and W.M. Saltzman. Poly(ethylene glycol)-conjugated dendrimer for biocompatible, high efficient, and low cost DNA delivery. Patent disclosed. (2000)
93. D. Luo and M.T. Muller. Biotin-Avidin-Networked-Genes (BANG) system for over-expression and cloning. *US Patent App. No. 09/244,722*. (1998)

Invited Lectures (total ~ 200)

1. **Plenary Speaker**, Institute of Biological Engineering (IBE) Annual Conference, Greenville, South Carolina, April 2016
2. DNA nanotechnology meets plasmonics workshop, Bad Honnef, Germany, Dec 2015
3. Sino-USA Synthetic Biology Symposium, Tianjin, China, Dec 2015
4. Tenth Annual Conference of Sino-US Nanosymposium, Wuhan, China, June 2015
5. Gordon Conference on Nano Agriculture, Waltham, MA, June 2015
6. Synthetic Biology Symposium, Tianjin, China, Dec 2014
7. **Keynote Speaker**, Materials Today Asia, Hong Kong, China, Dec 2014
8. The 1st International Synthetic Biology Symposium, Beijing, China, Sept 2014
9. Third DNA Nanotechnology Workshop, Suzhou, China, May 2014
10. Max-Planck-Institut für Physik komplexer Systeme, DNA-Based Nanotechnology: Digital Chemistry, Dresden, Germany, May 2014
11. Department of Bioengineering, University of Illinois, Urbana-Champaign, IL, May 2014
12. Department of Chemistry, State University of New York at Potsdam, Potsdam, NY, April 2014
13. Department of Soil and Crop Science, Cornell University, Ithaca, NY, Mar. 2014
14. Institute for Sustainable Sciences and Development, Hiroshima University, Higashihiroshima, Japan, Dec. 2013
15. **Plenary Speaker**, the 1st International Symposium on Multi-Omics and Nano Biotechnology for Human Disease Research, Seoul, South Korea, Nov. 2013
16. Department of Bioengineering, University of Maryland, College Park, Maryland, Oct. 2013
17. **Plenary Speaker**, the 3rd International Soft Matter Conference, Rome, Italy, Sept. 2013
18. **Keynote Speaker**, The 7th World Congress on Biomimetics, Artificial Muscles, and Nano-Bio (BAMN2013), Jeju Island, South Korea, Aug 2013
19. **Keynote Speaker** Controlled Release Society Annual Meeting (CRS), Honolulu, HI, July 2013
20. Molecular Robotics Meeting, Tokyo, Japan, July 2013
21. **Plenary Speaker**, the 29th Annual Meeting for the Japanese Society of Drug Delivery System (JSDDS), Kyoto, Japan, July, 2013
22. International Conference on Materials and Advanced Technologies (ICMAT), Singapore, July 2013
23. Foundation of Nanoscience and Nanotechnology Annual Conference (FNANO13), Snowbird, UT April 2013
24. Dept. of Biomedical Engineering, Univ. of Texas-Austin, Austin, TX, March 2013
25. SemiSynBio Workshop, Boston, MA, Feb., 2013

26. Chinese Academy of Agriculture Sciences, Agriculture Nanotechnology Center, Beijing, China, Jan 2013
27. Institute of Bioengineering and Nanotechnology of Singapore International Symposium, Singapore, Jan 2013
28. TB-Alliance China-NIH joint workshop, MDR-TB Conference Beijing, China, Jan 2013
29. 36th Annual Symposium of the University of Michigan Macromolecular Science and Engineering Center, Anne Arbor, Michigan, Oct 2012
30. Joint NSRC Workshop on Nanoparticle Science, Argonne National Laboratory, Argonne, IL, Nov 2012
31. Harvard University/Wyss Institute, Boston, MA, Oct 2012
32. **Leading lecturer.** The 2nd Symposium on Innovative Polymers for Controlled Delivery (SIPCD 2012), Suzhou, China, Sept 2012
33. 244th ACS Annual Meeting, Symposium "Functional Nanoparticles for Biomedical Applications", Philadelphia, PA, August 2012
34. Sino-USA Chinese Collaborative Workshop -- Opportunities and Challenges in Synthetic Biology (SUCC SynBio 2012), Tianjin, China, August 2012
35. MACRO 2012: 44th IUPAC World Polymer Congress: Enabling Technologies for a Safe, Sustainable, and Healthy World, Virginia Tech, VA, June 2012
36. 7th Sino-US Nano Forum, Xiamen, China, June 2012
37. Gates Foundation POC Diagnostic conference, Seattle, WA, May 2012
38. Materials Research Society Annual Meeting, San Francisco, April 2012
39. Dept. of Bioengineering, Washington University, Seattle, WA, April 2012
40. College of Life Sciences, University of Science and Technology of China, Hefei, Anhui, China, March 2012
41. Department of Chemistry, University of Science and Technology of China, Hefei, Anhui, China, March 2012
42. Beijing University of Chemical Engineering, Beijing, China, March 2012
43. Institute of Microbiology, China Academy of Sciences, Beijing, China, March 2012
44. Covidien, North Haven, CT, Jan. 2012
45. **Plenary speaker**, Second Nano Today Conference, Waikoloa, Hawaii, Dec. 2011
46. NIH-USDA joint workshop on nutrition delivery, Bethesda, Maryland, Nov. 2011
47. Jülich Soft Matter Days, Gustav-Stresemann-Institut, Bonn, Germany, Nov 2011
48. Bill and Melinda Gates Foundation Grand Challenge Conference, New Delhi, India, Nov. 2011
49. 6th Sino-US nano forum, Changchun, China, July 2011
50. International Conference on Materials and Advanced Technologies (ICMAT 2011), Singapore, June 2011
51. Bill and Melinda Gates Foundation Grand Challenge Conference, Vancouver, Canada, June 2011
52. International Food Technology Conference, New Orleans, Louisiana, June 2011
53. International Advanced Drug Delivery Symposium, Hsinchu, Taiwan, April 2011
54. School of Pharmacy, University of Toronto, Toronto, Canada, April 2011
55. 3rd Conference on Nanotechnology in Healthcare, Winthrop Rockefeller Institute, Petit Jean Mountain, Arkansas, April 2011
56. Dept. of Chemistry, City University of New York, New York City, NY, April 2011

57. Dept. of Mechanical Engineering, U. of Houston, Houston, TX, March 2011
58. Department of Biomedical Engineering, Yale University, New Haven, CT, March 2011
59. Molecular Materials Conference, Institute of Materials Research and Engineering, Singapore, Jan 2011
60. College of life sciences, Nankai University, Tianjin, China, Jan 2011
61. Nano Technology Forum, Suzhou, China, Nov 2010
62. The 5th Society for Biological Engineering International Conference on Biological Engineering and Nanotechnology, Singapore, Aug. 2010
63. Xi'an Jiaotong University (XJTU), Xi'an, China, June 2010
64. Shanghai Jiaotong University (SJTU), Shanghai, China, June 2010
65. Institute of Microbiology, Chinese Academy of Science, Beijing, China
66. Center of NanoAgriculture, Chinese Agriculture Academy of Science, Beijing, China, June 2010
67. Institute of Animal Husbandry, Chinese Agriculture Academy of Science, Beijing, China, June 2010
68. The 5th Sino-US Nano Forum, Suzhou, China, June 2010
69. Yonsei University, Seoul, South Korea, May 2010
70. Silla University, Pushan, South Korea., May 2010
71. The 6th Symposium of the LTS Academy "Unmet Needs in Personalized Medicines", West Orange, NJ, May 2010
72. National Cancer Institute, NIH, Bethesda, MD, April 2010
73. The 16th Annual Conference and Exhibition of the Society for Biomolecular Sciences, Phoenix, AZ, April 2010
74. Bristol Myer Squibb, Trent, NJ, April 2010
75. **Plenary speaker**, Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Mayaguez, Puerto Rico, March 2010
76. Dept. of Materials Science and Engineering, U. of Pennsylvania, Philadelphia, PA, March, 2010
77. School of Pharmacy, University of Toronto, Toronto, Canada, Feb. 2010
78. New York State Center of Excellence Series, University of Binghamton, Binghamton, NY, Feb. 2010
79. Queensland University, Brisbane, Australia, Dec. 2009
80. University of Illinois Distinguished Speaker Series, Urbana-Champaign, IL, Dec. 2009
81. Materials Research Society Annual Meeting, Boston, MA. Dec. 2009
82. Dept. of Molecular, Cellular, and Developmental Biology, U. of California at Los Angeles, Los Angeles, Oct. 2009
83. Symposium on Basic Science Advances Driving Innovation in Nanomedicine, American Society for Nanomedicine, Potomac, Maryland, Oct. 2009
84. Nanobiotechnology Symposium, Cornell University, Ithaca, NY, Oct. 2009
85. Biomedical Engineering Annual Conference, Pittsburgh, Oct. 2009
86. Nano Seminar Series, Stevens Institute of Technology, Hoboken, NJ, Sept. 2009
87. Workshop on Impact of Nanotechnologies on Agriculture and Food Systems: A Scoping Exercise for Assessment of Technologies and Societal Implications, Washington DC, Aug. 2009
88. Nano Today Conference, Singapore, Aug. 2009
89. Institute of Materials Research (IMRE), Singapore, Aug. 2009

90. College of Life Sciences, University of Science and Technology of China, Hefei, Anhui, China, July 2009
91. International Conference on Materials for Advanced Technologies, Symposium M: DNA nanotechnology, Singapore, July 2009
92. International Conference on Materials for Advanced Technologies, Symposium C: Drug Delivery, Keynote speech, Singapore, July 2009
93. International Conference on Materials for Advanced Technologies, Symposium B: Biosensing and Bioimaging, Singapore, July 2009
94. Sigma, St. Louis, June 2009
95. Monsanto, St. Louis, June 2009
96. The 12th International Symposium of Society of Chinese Bioscientists in America, Taipei, Taiwan, June 2009
97. International Workshop on Nanotechnology Enabled Sensors & Diagnostics, Dublin, Ireland, June 2009
98. Nanotechnology-enabled sensing workshop, National Nanotechnology Coordination Office, Arlington, VA, May 2009
99. Prostate cancer intercampus symposium, New York City, Jan, 2009
100. Chinese Academy of Science Suzhou Institute of Nano-tech and Nano-bionics, Suzhou, China, Dec. 2008
101. Nanobiology, Nanomedicine, and Innovation for Biotechnology Workshop, San Juan, Puerto Rico, Nov. 2008
102. Department of Materials Science and Engineering, Cornell University, Ithaca, NY, Nov. 2008
103. School of Pharmacy, University of Sao Paulo, Ribeirao Preto, Brazil, Nov. 2008
104. Third International Symposium of Post-Graduation Research (SINPOSPq), Ribeirao Preto, Brazil, Oct. 2008
105. Department of Chemistry, Rutgers University, Newark, NJ, Oct 2008
106. Ninth Annual Nanobiotechnology Symposium, Cornell University, Ithaca, NY, Oct. 2008
107. Westfälische Wilhelms-Universität, Department of Chemistry, Münster, Germany, Sept. 2008
108. British Pharmaceutic Conference 2008, Manchester, UK, Sept. 2008
109. Controlled Release Society Annual Meeting, New York City, New York, Jul 2008
110. CIMTEC 2008; 3rd International Conference on Smart Materials, Structures and Systems, Acireale, Sicily, Italy, June 2008
111. New England Biolabs, Ipswich, MA, June 2008
112. Department of Chemical, Materials and Biomolecular Engineering, University of Connecticut, Storrs, CT, April 2008
113. Fourth Annual PEGS, Difficult to Express Proteins, Boston, MA, April 2008
114. School of Pharmacy, Kyoto University, Kyoto, Japan, March 2008
115. Annual meeting of the Association of Biomolecular Resource Facilities (ABRF), "Disruptive Technologies in the Life Sciences", Salt Lake City, Utah, Feb. 2008
116. PepTalk 2008, Buzz session: "To Cho and Not to Cho", San Diego, CA, Jan. 2008
117. The 5th International nanomedicine and drug delivery symposium, Boston, MA, Nov. 2007
118. Nanobiotechnology Symposium, Cornell University, Oct 2007
119. Materials Today Asia, Beijing, China, Sept. 2007

120. Zhejiang University, Sept. 2007
121. Chinese National Academy of Agriculture, Beijing, China, Sept. 2007
122. Department of Physics, East China Normal University, Shanghai, Sept. 2007
123. American Chemical Society Annual Meeting, Boston, MA, Aug. 2007
124. 4th International Conference on Materials for Advanced Technology (ICMAT), Singapore, July 2007
125. The 3rd World Association for Chinese Biomedical Engineers (WACBE) World Congress on Bioengineering, Bangkok, Thailand, July 2007
126. School of Pharmacy, National University of Singapore, Singapore, July 2007
127. Nanyang Technology University, Singapore, July 2007
128. Forest Products Industry Conference, Knoxville, Tennessee, June 2007
129. SPIE Defense and Security Symposium, Orlando, FL, April 2007
130. Nanotechnology Symposium: from the Lab to the Marketplace. Polytechnic University, Brooklyn, NY, April 2007
131. Dept. of Materials Science and Engineering, U. of Delaware, Newark, Delaware, March 2007
132. Center for Cancer Nanotechnology Excellence (CCNE), U. of North Carolina, Chapel Hill, Chapel Hill, NC, March 2007
133. 9th International Symposium by Chinese Organic Chemists (ISCOC-9) and 6th International Symposium by Chinese Inorganic Chemists (ISCIC-6), Singapore, Dec. 2006
134. Institute of Bioengineering and Nanotechnology, Singapore, Dec. 2006
135. Dept. of Chemical Engineering, National University of Singapore, Singapore, Dec. 2006
136. Pfizer, Inc. San Diego, California, Dec. 2006
137. National Science Foundation Workshop on Wearable and Implantable Devices, Washington DC, Nov. 2006
138. Dept. of Plant Breeding, Cornell University, Ithaca, New York, Nov. 2006
139. Dept. of Chemical and Biomolecular Engineering, U. of Tennessee-Knoxville, Knoxville, TN, Nov 2006
140. CRPP-CNRS, Bordeaux, France, Oct. 2006
141. DNA Supra-structure, Bordeaux, France, Oct. 2006
142. The 4th International nanomedicine and drug delivery symposium, Omaha, Nebraska, Oct. 2006
143. Institute of Chemistry, China Academy of Sciences, Beijing, China, Oct. 2006
144. Dept. of Chemistry, Beijing University, Beijing, China, Oct. 2006
145. College of Pharmacy, Fudan University, Shanghai, China, Oct. 2006
146. Tsinghua-Cornell Nanotechnology workshop, Beijing, China, Oct. 2006
147. SJTU-Cornell Nanotechnology workshop, Shanghai, China, Oct. 2006
148. College of Agriculture and Biology, SJTU, Shanghai, China, Oct. 2006
149. Dept. of Chemistry, Brown University, Providence, RI, Sept. 2006
150. Dept. of Polymer Sciences & Engineering, U. of Massachusetts, Amherst, MA, Sept. 2006
151. Molecular Aging Research Center, Yonsei University, Seoul, Korea, Aug. 2006
152. World Congress 2006 on Medical Physics and Biomedical Engineering, Seoul, Korea, Aug. 2006
153. Upstate Life Sciences Conference, Buffalo, New York, Aug. 2006
154. Micro Nano Breakthrough, Vancouver, Washington, July 2006

155. International Food Nanotechnology Conference, Orlando, FL, June 2006
156. Institute of Food Technologists Annual Meeting, Orlando, FL, June 2006
157. CCMR Outreach Program, Hudson Valley Technology Development Center, Fishkill, NY, June 2006
158. Department of Materials Science and Engineering, MIT, Cambridge, MA, May 2006
159. Department of Molecular and Medical Pharmacology, University of California Los Angeles, Los Angeles, CA, May 2006
160. Particles 2006, Orlando, FL. May 2006
161. FNANO06, Snowbird, Utah, April 2006
162. Department of Chemistry and Biochemistry, Arizona State University, Tucson, AZ, March 2006
163. Department of Chemical Engineering, Washington University in St. Louis, St. Louis, MO. Feb. 2006
164. **Purina Lectureship**, Dept. of Clinical Sciences, Veterinary School, Cornell University, Ithaca, NY. Jan 2006
165. Dept. of Polymer Sciences and Engineering, U. of Massachusetts at Amherst, Amherst, MA, Dec. 2005
166. Dept. of Microbiology, U. of Massachusetts at Amherst, Amherst, MA, Dec. 2005
167. Second Annual BioDefense and BioNanoMedicine, Boston, MA, Nov. 2005
168. Physiology, Biophysics, and Systems Biology Seminar Program, Weill Medical School of Cornell University, New York City, NY, Oct. 2005
169. MEDi 2005, Hartford, Connecticut, Oct. 2005
170. Department of Chemistry, Clark Atlanta University, Atlanta, GA, Oct. 2005
171. Dept. of Chemical Engineering and Materials Sciences, Stevenson Institute of Technology, Oct. 2005
172. Biomedical Engineering Society (BMES) Annual Meeting, Baltimore, Sept. 2005
173. New York State Office of Science, Technology and Academic Research (NYSTAR) Emerging Technology Alliance Conference, Cortland, New York, Sept 22nd, 2005
174. Department of Plant Pathology, Cornell University, Ithaca, New York, Sept. 7th, 2005
175. America Chemical Society (ACS) Annual Meeting, Washington D.C., Aug. 28th. 2005
176. The First SJTU-CU International Conference on Biotechnology and Modern Agriculture, Shanghai, China, May 13th, 2005
177. World Congress on Industrial Biotechnology and Bioprocessing, Orlando, Apr. 21st, 2005
178. Department of Food Sciences, Cornell University, Geneva, NY, Apr. 8th, 2005
179. Department of Chemistry and Biochemistry, Swarthmore College, Swarthmore, PA, Nov. 4th, 2004
180. Nanobiotechnology Center Symposium 2004, Cornell University, Ithaca, NY, Oct. 8th, 2004
181. British Pharmaceutical Conference 2004, The Association of the British Pharmaceutical Industry, Manchester, United Kingdom, Sept. 27th, 2004
182. Dept. of Materials Science and Engineering, Cornell University, Ithaca, NY, Sept. 2004

183. Nano Korea Symposium 2004, Ministry of Science and Technology of Korea, Seoul, Korea, Aug. 23rd, 2004
184. Korea Intelligent Microsystem Center (IMC), Seoul, Korea, Aug. 24th, 2004
185. Workshop on DNA Supramolecular Assemblies, The University of Avignon-France and the U.S. Army Research Office, Avignon, France, May 5th, 2004
186. Department of Chemistry, Clarkson University, Potsdam, New York, March 2004.
187. International Conference on Materials for Advanced Technologies, Singapore, Dec. 2003
188. Singapore Institute of Bioengineering and Nanotechnology (IBN), Singapore, Dec. 2003
189. Shanghai JiaoTong University, Shanghai, China, Dec. 2003
190. HuaZhong Agricultural University, Wuhan, China, Dec. 2003
191. National Planning Workshop: Nanoscale Science and Engineering for Agriculture and Food Systems, USDA, Washington DC, Nov. 18th, 2002
192. Board of Directors, Cornell Research Foundation, Inc. Ithaca, Oct. 2002
193. Singapore Institute of Materials Research and Engineering (IMRE), Singapore, July 2002
194. Gene Delivery Workshop, New Jersey Center for Biomaterials, Piscataway, New Jersey, May 15th, 2002
195. Institute of Biological Engineering 2002 International Meeting, Baton Rouge, Louisianan, Jan. 19th, 2002
196. Dept. of Pharmaceutical Sciences, College of Pharmacy, University of Michigan, Anne Arbor, Michigan, April 5th, 2001
197. Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin, Madison, Wisconsin, March 20th, 2001
198. Dept. of Biomedical Engineering, University of Texas, Austin, Texas, Feb. 27th, 2001
199. Dept. of Agricultural and Biological Engineering, Cornell University, Ithaca, New York, Feb. 14th, 2001

Conference Presentations (Selected)

1. H. Funabashi, D. Luo, Nucleic Acid Engineering; DNA as A Generic Material, Riken Symposia-- Hierarchical Crossing Molecular and System Life Science, oral presentation (invited talk), Wako, Japan (2009)
2. W.L. Cheng, S.J. Tan, M.J. Campolongo, J.J. Cha, C.C. Umbach, D.A. Muller and D. Luo, "Free-standing DNA-regulated Plasmonic Nanoparticle Superlattices", International Conference on Materials for Advanced Technologies, Poster Presentation, Singapore, (2009)
3. W. Cheng, M. J. Campolongo, S. J. Tan, J. J. Cha, C. C. Umbach, D. A. Muller, and D. Luo, "Suspended, DNA-regulated Plasmonic Nanoparticle Superlattices", MRS Spring meeting, Poster, San Francisco, (2009)
4. M. R. Hartman, N. Park, J. B. Lee, D. J. Aneshansley, and D. Luo. "Multiplexed Pathogen Detection via a Portable Fixcytometer", Sensors and Diagnostics Workshop, Poster presentation, Dublin (2009)
5. W. Cheng, and D. Luo, "Unconventional DNA-mediated Route to Plasmonic Nanoparticle Superlattices" Poster, BEE Research Symposium, Cornell University, Ithaca (2009)

6. N. Park, H. Funabashi and D. Luo, "A Cell-free protein producing gel", 2009 Cornell BEE Symposium, poster presentation, Ithaca (2009)
7. N. Park, M. R. Hartman, J. B. Lee, D. Aneshansley and D. Luo, "Multiplexed pathogen detector via a portable flowcytometer", 2009 Cornell BEE Symposium, poster presentation, Ithaca (2009)
8. N. Park, P. Kiatwuthinon, J. B. Lee and D. Luo, "DNA hydrogel microdroplet", 2009 Cornell BEE Symposium, poster presentation, Ithaca (2009)
9. N. Park, S. H. Um, H. Funabashi, J. Xu and D. Luo, "A Cell-free protein producing gel", 2009 NBTC site visit, poster presentation, Ithaca (2009)
10. J. B. Lee, Y. H. Roh, and D. Luo, "DNA-based polymers by target-driven polymerization", MRS Spring Meeting, Oral presentation, San Francisco, CA (2009)
11. Y.H. Roh, J.B. Lee, P. Kiatwuthinon, N. Park, M. Hartman and D. Luo, "Self-assembly of DNA-Lipid Hybrid Amphiphiles", BEE Research Symposium, Poster, Ithaca (2009)
12. J. B. Lee and D. Luo, "DNA based target-driven polymerization for pathogen detection", Cornell Center for Vertebrate Genomics, Verge Meeting, Oral presentation, Ithaca, NY (2008)
13. J. Xu, N. Park, H. Funabashi and D. Luo, A Novel DNA Hydrogel Can Synthesize Proteins with High Yield and Efficiency without Living Cells. Cornell Nanobiotechnology Center annual meeting, Poster presentation, Ithaca, NY (2008)
14. W. Cheng, N. Park, M. Hartman, T. M. Walter, and D. Luo, "Shaping Femtoliter Water Droplets for Patterning DNA-mediated Plasmonic Supra-crystals", Poster, 9th Annual Nanobiotechnology Symposium, Ithaca, NY, (2008)
15. W. Cheng, N. Park, M. Hartman, T. M. Walter, and D. Luo, "DNA-regulated nanoparticle superlattice and shaping", MRS Fall meeting, Boston, (2007)
16. H. Funabashi, N. Park, J. B. Lee, D. Luo, A Multiplexed Antibody-Nanobarcode System for 2D Western Blots in Proteomic Research, The 06-07 Center for Advanced Technology (CAT) Grant Recipient Annual Poster Presentation, poster presentation, Ithaca (2007)
17. J. Xu, N. Park and D. Luo, Cell Free Synthesis of Bioadhesive Protein mefp-1 in High Yield via a Novel DNA Hydrogel, Materials Research Society (MRS) Fall Meeting. Poster presentation, Boston (2007)
18. J. B. Lee, Y. H. Roh, and D. Luo, "DNA with Zip Codes: Addressable DNA Molecules and their Polymerization", MRS Fall Meeting, poster, Boston, MA (2007)
19. H. Funabashi, C. Lo, D. Luo, Enzymatic Mass Production of Branched DNA Using Rolling Circle Amplification, 4th Sweden-Japan Workshop on Bio-Nanotechnology, poster presentation, Tsukuba, Japan (2006)
20. N. Park, S. Um and D. Luo, "A Cell-free protein producing DNA hydrogel", Materials Research Society Annual Fall Meeting, Platform presentation, Boston (2006)
21. H. Funabashi, D. Luo, Nucleic Acid Engineering, Cornell University-Shanghai Jiao Tong University, The second international conference, Biotechnology and Modern Agriculture: Animal and Human Health, oral presentation, Ithaca (2006)
22. S. Um, N. Park and D. Luo, "DNA hydrogel", Materials Research Society Annual Fall Meeting, Platform presentation, Boston (2006)
23. N. Park, S. Um and D. Luo, "A cell-free protein production gel", Materials Research Society Annual Fall Meeting, Platform presentation, Boston (2006)

24. S. Um, S. Kwon, J. Lee and D. Luo, "A Dendrimer-like DNA-polystyrene based nanoscale buckyballs", American Chemical Society Annual Meeting, poster, Washington DC (2005)
25. S. Um, S. Kwon, J. Lee and D. Luo, "DNA nanobuckyballs", FNANO 2005, poster, Snowbird, Utah (2005)
26. Y. Li, Y. Cu and D. Luo, "DNA Nanobarcodes", FNANO 2005, poster, Snowbird, Utah (2005)
27. Y. Li and D. Luo, "Dendrimer-like DNA based nano-barcodes for molecular detection". Biomedical Engineering Society (BMES) Annual Meeting, Platform presentation, Philadelphia, PA (2004)
28. S. Um, S. Kwon and D. Luo, "Gold nanocrystal conjugated, DNA-based, anisotropic material". Biomedical Engineering Society (BMES) Annual Meeting, poster, Philadelphia, PA (2004)
29. Y. Li, S. Um, Y. Cu and D. Luo, "Use DNA as a polymeric vector to assemble a viral and non-viral hybrid multi-drug delivery system" Fiber Society Annual Meeting, Platform presentation, Ithaca, (2004)
30. C. A. H. Prata, Y. Zhao, P. Barthélémy, Y. Li, D. Luo, T.J. McIntosh, S.J. Lee, and M.W. Grinstaff. "Charge-Reversal Amphiphiles for Gene Delivery." Fiber Society Annual Meeting, Platform presentation, Ithaca, (2004)
31. Li, Y., Um, S and D. Luo, "A DNA-based, viral and non-viral hybrid DNA delivery system". 31st Controlled Release Society Annual Meeting, Platform presentation, Honolulu, Hawaii, (2004)
32. C. A. H. Prata, Y. Zhao, P. Barthélémy, Y. Li, D. Luo, T.J. McIntosh, S.J. Lee, and M.W. Grinstaff. "Charge-Reversal Amphiphiles for Gene Delivery." 227th American Chemical Society, Anaheim, CA, ACS-ABS-BIOT #147 (invited lecture; MWG), (2004)
33. Y. Li and D. Luo "Peptide conjugated dendrimer-like DNA for DNA delivery", Materials Research Society Annual Fall Meeting, poster, Boston, (2003)
34. Y. Li, Y.D. Tseng, S.Y. Kwon, L. d'Espaux, J.S. Bunch, P.L. McEuen and D. Luo "Controlled Assembly of Dendrimer-like DNA", Materials Research Society Annual Fall Meeting, poster, Boston (2003)
35. Y. Li, Y. Tseng and D. Luo "Molecular assembly of dendrimer-like DNA nanoparticles", International Conference on Micro and Nano Systems, Platform presentation, Kunming, China (2002)
36. D. Luo, A. Hwa, S. Ma and W.M. Saltzman "Characterization of controlled DNA release from single PLGA microspheres", Controlled Release Society Annual Meeting, Platform presentation, (poster pick), San Diego, California (2001)
37. D. Luo, S. Tanksley and W.M. Saltzman "Controlled DNA release from a microchip using electricity", Controlled Release Society Annual Meeting, Platform presentation (by Tanksley, poster pick), San Diego, California (2001)
38. D. Luo, R.A. Gemeinhart, C.J. Anker and W.M. Saltzman "Silica particles for enhancement of gene delivery", Society for Biomaterials Annual Meeting. Platform presentation (by Gemeinhart), St. Paul, Minnesota (2001)
39. D. Luo, N. Belcheva, E. Han and W.M. Saltzman "Novel poly (ethylene glycol)-conjugated dendrimer for biocompatible, high efficient, and low cost DNA delivery", Material Research Society Fall Meeting: Biomaterials for Drug Delivery. Platform presentation, Boston, Massachusetts (2000)

40. H. Shen, D. Luo and W.M. Saltzman “Vaginal mucosal immunity to sperm-specific lactate dehydrogenase-C4 induced by controlled release DNA vaccines”, *American Institute of Chemical Engineers*, Platform presentation (by Shen), Los Angeles, California (2000)
41. D. Luo, E. Han, N. Belcheva, and W.M. Saltzman “A novel use of silica nanobeads for enhanced DNA delivery”, Material Research Society Spring Meeting: Nanostructures in polymers, Platform presentation, San Francisco, California (2000)
42. D. Luo and W.M. Saltzman “New approaches for vaccination using genes and biocompatible polymers”, Amer. Asso. of Lab Animal Science (NY), Platform presentation, Ithaca, New York (1999)

Professional Affiliations

1. American Institute of Medical and Biological Engineering (AIMBE) since 2012
2. American Society for Gene Therapy (ASGT) since 2002
3. Institute of Biological Engineering (IBE) since 2001
4. Society for Biomaterials (SFB) since 2000
5. Material Research Society (MRS) since 1999
6. Society of Chinese Bioscientists in America (SCBA) since 1996
7. The American Chemical Society (ACS) since 1996
8. The American Association for the Advancement of Science (AAAS) since 1994