

Joong Ho Moon at FIU

EDUCATION

Degree	Institution	Field	Dates
Postdoctoral Associate	Massachusetts Institutes of Technology (MIT) (ADVISOR: TIMOTHY M. SWAGER)	Polymer Chemistry	1999 – 2001
Ph. D.	Pohang University of Science and Technology (POSTECH), Pohang, Korea (ADVISOR: JOON WON PARK)	Materials Chemistry	1996 – 1999
M.S.	POSTECH	Materials Chemistry	1994 – 1996
B.S.	Busan National University, Busan, Korea	Chemistry Education (military service 1988 – 1990)	1986 – 1993

PART-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Date
MIT Institute for Soldier Nanotechnology (ISN)	Visiting Scientist	Materials Chemistry	2004 – 2008

NON-ACADEMIC EXPERIENCE

Place of Employment	Title	Date
ICx Technology Cambridge, MA	Principal Investigator Senior Research Scientist	Jun. 2001 – Jul. 2008

EMPLOYMENT RECORD AT FIU

Rank	Date
Professor	2020 –
Associate Professor	2014 – 2020
Assistant Professor	2008 – 2014

PROFESSIONAL HONORS, PRIZES, AND FELLOWSHIPS

2025	Office of Naval Research (ONR) Summer Research Fellowship
2024	Office of Naval Research (ONR) Summer Research Fellowship
2023	FIU CASE Faculty Award (Teaching)
2020	FIU CASE Faculty Award (Research)
2019	FIU CASE Faculty Award (Research)
2015	FIU Top Scholars
2014	NSF CAREER award
2006	NIH/NIGMS, SBIR grant award (1-R43-GM075516-01)
1999	Korea Science and Engineering Foundation Postdoctoral Fellowship
1999	Outstanding Research at Pohang Advanced Light Source

PUBLICATIONS

Underline denotes FIU undergraduate, graduate, or postdoctoral scholar. The corresponding authorship is marked as an asterisk. The co-first author is marked as a cross.

1. "Enhanced Intracellular Protein Activity by Caveolae-mediated Endocytosis of Conjugated Polymer/Protein Complexes", G. S. Sarker, C. R. Romagosa, **J. H. Moon***, *Macromolecular Bioscience*, (2025) (10.1002/mabi.202400557)
2. "Effect of conjugation length on conjugated polymer-mediated intracellular protein delivery", G. S. Sarker, C. R. Romagosa, **J. H. Moon***, *Macromolecular Research*, (2025) (10.1007/s13233-024-00360-9)
3. "Proton Motive Force-disrupting Antimycobacterial Guanylurea Polymer", M. Miranda-Velez, G. S. Sarker, P. Ramisetty, S. Geden, P. C. Bartolomeu Halicki, T. Annamalai, Y. Tse-Dinh, K.H. Rohde, and **J. H. Moon***, *Biomacromolecules*, 23, 4668-4677 (2022) (10.1021/acs.biomac.2c00902)
4. "Effects of sidechain isomerism on polymer-based non-covalent protein delivery", A. Barrios, M. Milan Diaz, E. Perozo, M. L. Hossen, P. Chapagain, **J. H. Moon***, *Chemical Communications*, 58, 8246-8249 (2022) (10.1039/D2CC02343A)
5. "Carbamoylated guanidine-containing polymers for non-covalent functional protein delivery in serum-containing media", A. Barrios, M. Estrada, **J. H. Moon***, *Angewandte Chemie International Edition*, 61, e202116722 (2022) (10.1002/anie.202116722)
6. "Potentiometric and SERS Detection of Single Nanoparticle Collision Events on a Surface Functionalized Gold Nanoelectrode", G. Ghimire, P. Pandey, J. Guo, G. S. Sarker, **J. H. Moon**, and J. He*, *Journal of The Electrochemical Society*, 169, 047511 (2022)
7. "Guanylurea-functionalized conjugated polymer enables RNA interference in ex vivo human airway epithelium", M. S. Ahmed, R. K. Dutta, P. Manandhar, X. Li, H. Torabi, A. Barrios, P. Wang, S. Chinnapaiyan, H. Unwalla,* **J. H. Moon***, *Chemical Communications*, 55, 7804-7807 (2019) (10.1039/C9CC02856K)
8. "Phenyleneethynylene trimer-based rigid-flexible [2+2] macrocycles for nucleic acid labelling in live cells", **J. H. Moon***, P. Manandhar, H. Torabi, M. Rohman, L. Mathivathanan, K.-H. Lee, and S. Irlé, *Chemical Communications*, 55, 5930–5933 (2019) (10.1039/C9CC02162K)
9. "Extracellular Surface Potential Mapping by Scanning Ion Conductance Microscopy Revealed Transient Transmembrane Pore Formation Induced by Conjugated Polymer Nanoparticles", F. Feng,⁺ P. Manandhar,⁺ M. S. Ahmed, S. Chang, N. Panday, H. Zhang, **J. H. Moon*** and J. He*, *Macromolecular Bioscience*, 19 (2), 1800271 (2019).

10. "Controlled ionic complexation of positively-charged phenylene-based conjugated polymers by modulated backbone structures", P. Manandhar, T. Vokata, S. Lee, Y. Lee, H. M. Jung, S. Shim*, and **J. H. Moon***, *Polymer International*, 67 (12), 1629–1637 (2018) (10.1002/pi.5686)
11. "Synthesis of antimicrobial poly(guanylurea)s", M. S. Ahmed, T. Annamali, X. Li, A. Seddek, P. Teng, Y. Tse-Dinh, and **J. H. Moon***, *Bioconjugate Chemistry*, 29, 1006–1009 (2018) (10.1021/acs.bioconjchem.8b00057)
12. "Amide-based oligomers for low-viscosity composites of polyamide 66", J. Lee, W.G. Seo, J. Kim, Y.S. Kim, Y. Yoo, **J. H. Moon**, S.G. Kim, H.M. Jung*, *Macromolecular Research*, 25 (10), 1000–1006 (2017) (DOI: 10.1007/s13233-017-5129-2)
13. "Scanning ion conductance microscopic study for cellular uptake of cationic conjugated polymer nanoparticles", Y. Shan, N. Panday, Y. Myoung, M. Twomey, X. Wang, W. Li, E. Celik, V. Moy, H. Wang*, **J. H. Moon***, J. He*, *Macromolecular Bioscience*, 16, 599–607 (2016) (10.1002/mabi.201500320)
14. "Mitochondria-specific conjugated polymer nanoparticles", M. Twomey, E. Mendez, R. Manian, S. Lee*, and **J. H. Moon***, *Chemical Communications*, 52, 4910–4913 (2016) (10.1039/C6CC00810K)
15. "Synthesis of Biodegradable Conjugated Polymers with Controlled Backbone Flexibility", T. Vokatá, M. Twomey, E. Mendez, **J. H. Moon***, *Journal of Polymer Science, Part A. Polymer Chemistry*, 53, 1403–1412 (2015) (cover page) (10.1002/pola.27622)
16. "Differential interactions of conjugated polymer nanoparticles with glycosaminoglycans in synthetic urine", M. Twomey, T. Vokatá, M. R. Kumar and **J. H. Moon***, *Chemical Communications*, 51, 4065–4068 (2015) (10.1039/C5CC00110B)
17. "Fabrication of core-shell nanoparticles via controlled aggregation of semiflexible conjugated polymer and hyaluronic acid", M. Twomey, Y. Na, Z. Roche, E. Mendez, N. Panday, J. He, **J. H. Moon***, *Macromolecules*, 46, 6374–6378 (2013) (10.1021/ma400996y).
18. "Synthesis of conjugated random co-polymers via the decarboxylative coupling of propiolic acids with aryl halides", T. Vokata, M. R. Kumar, K. Park, **J. H. Moon***, S. Lee*, *Synthetic Letters*, 24, 1563–1567 (2013) (10.1055/s-0033-1339189)
*Highlighted in Synfacts 2013, 9(9), 0947 (10.1055/s-033-1339630)
19. "Side chain and backbone structure-dependent cellular toxicity and subcellular localizations of conjugated polymer nanoparticles", E. Mendez and **J. H. Moon***, *Chemical Communications*, 49 (54), 6048 (2013) (10.1039/C3CC43015D)
20. "Caveolae-mediated endocytosis of conjugated polymer nanoparticles", J. Lee, M. Twomey, C. Machado, G. Gomez, M. Doshi, A. J. Gesquiere, **J. H. Moon***, *Macromolecular Bioscience*, 13, 913 (2013) (10.1002/mabi.201300030)
21. "Synthesis of phenyleneethynylene-doped poly(phenylenebutadiynylene)s for live cell imaging" T. Vokata, **J. H. Moon***, *Macromolecules*, 46, 1253 (2013) (10.1021/ma3019975)
22. "Regioselective One- Pot Synthesis of Isocoumarins and Phthalides from 2- Iodobenzoic Acids and Alkynes by Temperature Control", M. R. Kumar, F. M. Irudayanathan, **J. H. Moon**, S. Lee*, *Advanced Synthesis and Catalysis*, 355(16), 3221 (2013) (10.1002/adsc.201300561)
23. "3D-resolved fluorescence and phosphorescence lifetime imaging using temporal focusing wide-field two-photon excitation", H. Choi, D. S. Tzeranis, J. W. Cha, P. Clémenceau, S. J. G. de Jong, L. K. van Geest, **J. H. Moon**, I. V. Yannas, and P. T. C. So*, *Optics Express*, 24, 26219 (2012)
24. "Conjugated Polymer Nanoparticles for Small Interfering RNA Delivery", **J. H. Moon***, E. Mendez, Y. Kim, A. Kaur, *Chemical Communications*, 47, 8370 (2011) (10.1039/c1cc10991j)
25. "Controlled aggregation of conjugated polymer nanoparticles via organic acid treatments", Y.-J. Ko, E. Mendez, **J. H. Moon***, *Macromolecules*, 44, 5527 (2011) (10.1021/ma200661h)
26. "Conjugated polymer nanoparticles for effective siRNA delivery to tobacco BY-2 protoplasts", A. T. Silva, A. Nguyen, C. Ye, J. Verchot*, and **J. H. Moon***, *BMC Plant Biology*, 10, 291 (2010) (10.1186/1471-2229-10-291)

27. "Conjugated Polymer Nanoparticles for Two-photon Imaging of Endothelial Cells in a Tissue Model", A. Abdul Rahim, W. McDaniel, K. Bardon, S. Srinivasan, V. Vickerman, P. T. C. So, and **J. H. Moon**,* *Advanced Materials*, 21, 3492 (2009) (10.1002/adma.200900416)
28. "One-pot synthesis of diarylalkynes using palladium-catalyzed Sonogashira reaction and decarboxylative coupling of sp carbon and sp² carbon", J. Moon, M. Jeong, H. Nam, **J. H. Moon**, H. M. Jung, and S. Lee*, *Organic Letters*, 10, 945 (2008) (10.1021/ol703130y)
29. "Live cell permeable poly(p-phenylene ethynylene)", **J. H. Moon**,* William McDaniel, Paul MacLean and L. F. Hancock, *Angewandte Chemie International Edition*, 46, 8223 (2007) (10.1002/anie.200701991)
30. "Conjugated polymer nanoparticles for biochemical protein kinase assay", **J. H. Moon**,* Paul MacLean, William McDaniel and L. F. Hancock, *Chemical Communications*, 4910 (2007) (10.1039/b710807a)
31. "Facile fabrication of poly(p-phenylene ethynylene)/colloidal silica composite for nucleic acid detection", **J. H. Moon**, William McDaniel and L. F. Hancock*, *Journal of Colloid and Interface Science*, 300, 117 (2006) (10.1016/j.jcis.2006.03.063)
32. "Capture and Detection of a Quencher Labeled Oligonucleotide by Poly(phenylene ethynylene) Particles", **J. H. Moon**, R. Deans, E. Krueger, and L. F. Hancock*, *Chemical Communications*, 104 (2003) (10.1039/b207186j)
33. "Poly(p-phenylene ethynylene) Brushes", **J. H. Moon** and T. M. Swager*, *Macromolecules*, 35, 6086 (2002) (10.1021/ma025539r)
34. "Selective Cleavage of Functional Groups in Functionalized Organic Monolayers by Synchrotron Soft X-ray", T. -H. Kang, K. -J. Kim, C. -C. Hwang, K. Ihm, H. -J. Shin, M. -K. Lee, B. Kim, Y. -H. La, **J. H. Moon**, H. J. Kim, J. W. Park*, C. -Y. Park, *Surface Review and Letters*, 9(1), 305 (2002) (10.1142/S0218625X02002233)
35. "A Hyperbranched Poly(ethyleneimine) Grown at the Surfaces", H. J. Kim, **J. H. Moon** and J. W. Park*, *Journal of Colloid and Interface Science*, 227, 247 (2000) (10.1006/jcis.2000.6861)
36. "Selective Cleavage of the Carbon-Halide Bond in Substituted Benzaldimine Monolayers by Synchrotron Soft X-ray: Anomalously Large Cleavage Rate of the Carbon-Bromide Bond", **J. H. Moon**, Y. -H. La, J. Y. Shim, B. J. Hong, K. -J. Kim, T. -H. Kang, B. Kim, H. Kang, and J. W. Park*, *Langmuir*, 16, 2981 (2000) (10.1021/la991061h)
37. "Selective Cleavage of the Nitro Group from a Nitrophenyl Monolayer by Synchrotron Soft X-ray", **J. H. Moon**, K. -J. Kim, T. -H. Kang, B. Kim, H. Kang, and J. W. Park*, *Langmuir*, 14, 5673 (1998) (10.1021/la980349o)
38. "Absolute Surface Density of the Amine Group of the Aminosilylated Thin Layers: UV-vis Spectroscopy, Second Harmonic Generation, and Synchrotron-Radiation Photoelectron Spectroscopy Study", **J. H. Moon**, J. H. Kim, K. -J. Kim, T. -H. Kang, B. Kim, C. H. Kim, J. H. Hahn and J. W. Park*, *Langmuir*, 13, 4305 (1997) (10.1021/la9705118)
39. "Self-Assembly of Aminosilane Layers: Determination of Surface Density of the Amine Group Through a Reversible Chemical Reaction", **J. H. Moon**, J. W. Shin and J. W. Park*, *Molecular Crystal Liquid Crystal*, 295, 185 (1997)
40. "Self-Assembly of Nonlinear Optical Chromophores Through Ionic Interactions", **J. H. Moon**, J. U. Choi, J. H. Kim, H. Chung, J. H. Hahn, S. B. Kim and J. W. Park*, *Journal of Materials Chemistry*, 6, 365 (1996) (10.1039/jm9960600365)
41. "Formation of Uniform Aminosilane Thin Layers: An Imine Formation to Measure Relative Surface Density of the Amine Group", **J. H. Moon**, J. W. Shin, S. Y. Kim and J. W. Park*, *Langmuir*, 12, 4621 (1996) (10.1021/la9604339)
42. "Self-Assembly of Nonlinear Optical Chromophoric Layers Through the Ionic Interaction", J. U. Choi, C. B. Lim, T. Y. Chung, **J. H. Moon**, J. H. Hahn, S. B. Kim and J. W. Park*, *Synthetic Metal*, 71, 1729 (1995) (10.1016/0379-6779(94)03025-2)

Proceedings

1. "Aggregation control of poly(p-phenylene ethynylene)s in water for biological imaging applications", J. H. Moon, A. Nguyen, and Y. Ko, American Chemical Society, PMSE preprint, v240 (2010)
2. "Super bright conjugated polymer nanoparticles for long-term cell tracking", N. Abdul Rahim, W. McDaniel, K. Bardon, V. Vickerman, J. Moon, P. So, American Chemical Society, PMSE preprint, v237 (2009)
3. "Conjugated polymer nanoparticles for live cell imaging", J. H. Moon, W. McDaniel, and L. F. Hancock, American Chemical Society, PMSE preprint, v235 (2008)
4. "Stem-loop oligonucleotide beacons as switches for amplifying-fluorescent-polymer-based biological warfare sensors", K. D. Clinkenbeard, A. Ramachandran, J. R. Malayer, J. H. Moon and L. F. Hancock, Proc. SPIE, 5071, 272 (2003)
5. "Oligonucleotide Detection with Amplifying Fluorescent Polymer Particles", J. H. Moon, R. Deans, E. Krueger, and L. F. Hancock, American Chemical Society, Polymer Preprint, 43(2), 764 (2002)

Chapters in Books

1. Moon, J.H. and Henry, Conjugated polymers for effective gene delivery. In *Conjugated polymers for biological and biomedical applications*; Liu, B., Ed.; Wiley-VCH Verlag GmbH & Co. KGaA, 2018; pp 215-242

FUNDED RESEARCH

1. "Poly-conjugated oligomers for noninvasive functional protein delivery", **Moon (PI)**, NSF, 2021-2022
2. "Evaluation of poly(guanylurea)-piperazine 8K as an antibacterial agent for Colgate's home care products", **Moon (PI)**, Colgate-Palmolive, 2019-2020
3. "CAREER: Self-assembly of biodegradable conjugated polymers for RNA interference", **Moon (PI)**, NSF, 09/01/14-02/28/19
4. "NSF REU Supplement", **Moon (PI)**, NSF, 2018-2019
5. "Development of 35% lightweight CCB module for automotive using highly impregnated nylon based LFT composites", Park (PI), **Moon (Co-PI)**, Korea Evaluation Institute of Industrial Technology, 10/1/14-9/30/19.
6. "Novel Polymeric nanoparticles for drug delivery applications" McGoron (PI), NIH R21, 08/01/13-07/31/15, **Moon (Co-I)**
7. "Advanced Self-powered Systems of Integrated Sensors and Technologies (ASSIST)", PIs: Drs. Misra and Muth (North Carolina State Univ.), Dr. Bhansali (FIU), Dr. Lach (Univ. Virginia), and Dr. Jackson (Penn. State Univ.), NSF Nanosystems Engineering Research Center, 09/01/12-08/31/17, **Moon (Co-PI)**
8. "Multiphoton Probes for Biomedical Imaging", **Moon (PI)**, NIH SC1, 07/01/2011-06/30/2015.
9. "Conjugated polymer nanoparticles via aggregation control", **Moon (PI)**, FIU CAS Summer Faculty Development Award, 2010.

PATENTS

1. “Anti-mycobacterial drugs”, J. H. Moon and M. Miranda, **US Patent 11,974,972 B1** (May 2024)
2. “Guanylurea functionalized peptides and proteins for therapeutics”, J. H. Moon, **US Patent 11,975,077B2** (May 2024)
3. “Anti-mycobacteria Drugs”, J. H. Moon and M. Miranda, **US Patent 11,857,521 B1** (January 2024)
4. “Modified guanidine-containing polymers for biological delivery”, J. H. Moon, A. Barrios, and M. Milan Diaz, **US Patent 11,801,228 B2** (October 2023)
5. “Modified guanidine-containing polymers for biological delivery”, J. H. Moon, A. Barrios, and M. Milan Diaz, **US Patent 11,529,315 B1** (December 2022)
6. “Conjugated oligomer-based macrocycles for live cell imaging”, J. H. Moon, **US Patent 11,480,576 B2** (October 2022)
7. “Guanylurea functionalized peptides and proteins for therapeutics”, J. H. Moon, **US Patent 11,123,442** (September 2021)
8. “Modulated guanine-containing polymers or nanoparticles”, J. H. Moon and A. Barrios, **US Patent 10,688,189B1** (June 2020)
9. “Modulated guanine-containing polymers or nanoparticles”, J. H. Moon and M. S. Ahmed, **US Patent 10,568,902B2** (February 2020)
10. “Antimicrobial poly(guanylurea)s”, J. H. Moon and M. S. Ahmed, PCT/US2019/020656 (2019)
11. “Antimicrobial poly(guanylurea)s”, J. H. Moon and M. S. Ahmed, **US Patent 10,017,462B1** (June 2018)
12. “Flexible poly-p-(phenyleneethynylene)s with controlled conjugation length and biodegradable conjugated polymers for target organelle specific labeling and drug delivery”, J. H. Moon, R. Manian, E. Mendez, **US Patent 9,757,410 B2** (September 2017)
13. “One-pot synthesis of flexible poly-p-(phenyleneethynylene) s with controlled conjugated length”, J. H. Moon and T. Vokata, **US Patent 9,676,886 B2** (June 2017)
14. “Emissive species for clinical imaging”, J. H. Moon, **US Patent 7,521,232** (2009)

PRESENTED PAPERS AND LECTURES

1. “Evaluating Antimicrobial Inhibition Levels of Novel Carbamoylated Guanidine Modified e-Poly-L-Lysine Biopolymer Compounds”, Carlos P. Luzuriaga, Carlos Romagosa, Thirunavukkarasu Annamalai, Yukching Tse-Dinh, and Joongho Moon, the National Conference on Undergraduate Research, Pittsburgh, PA, April 2025
2. “The Development and Testing of a Novel Sorbent Material for Headspace Analysis With Application to Illicit Drugs”, Sadie Olrogg, Lauryn DeGreeff, Joong Ho Moon, 77th Annual AAFS Scientific Conference, Baltimore, MD, Feb. 2025
3. “Hydrophobic carbamoylated guanidine-modified epsilon-poly-L-lysine biopolymers for intracellular protein delivery”, Carlos R. Romagosa, Naeli M. Emad, and Joongho Moon, ACS National Meeting, San Diego, CA, March 2025
4. “Hydrophobic carbamoylated guanidine-modified epsilon-poly-L-lysine biopolymers for intracellular protein delivery”, Carlos R. Romagosa, Naeli M. Emad, and Joongho Moon, NanoFlorida International Conference, Miami, FL, March 2025
5. “Carbamoylated guanidine derivatives for non-covalent intracellular protein delivery”, Joong Ho Moon, Chonnam National University, Korea, Oct. 2024 (**Invited**)
6. “Intracellular Protein Delivery by Non-ionic Guanylurea-containing Polymers”, Gordon Research Conference, Cancer Nanotechnology, Alfonso Barrios, Mario Milan Diaz, and Joong Ho Moon, Waterville, NH, June 2023

7. "Guanylyurea-functionalized polymers for intracellular protein delivery", Joong Ho Moon, Korean Chemical Society Spring Meeting, Suwon, Korea, Apr. 2023 **(Invited)**
8. "Modified guanidine-containing polymers for protein delivery and antimycobacterial effects", Konkuk U/Sejong U seminar, Apr. 2023 **(Invited)**
9. "Oligo(carbamoylated guanidine) (OCG) yields selectivity against mycobacteria via depolarization of the membrane", Michelle Miranda-Velez, Sabbir Sarker, Priya Ramisetty, Thirunavukkarasu Annamalai, Yuk-Ching Tse-Dinh, Kyle Rohde, and Joong Ho Moon, ACS Meeting, Spring 2022
10. "Coplanar and rigid phenyl carbamoylated guanidine group enhances intracellular noncovalent protein delivery", Alfonso Barrios, Marilen Estrada, Joong Ho Moon, ACS Meeting, Spring 2022
11. "Conjugated oligomers for fluorescent live cell imaging", J. H. Moon, SERMACS, Savannah, GA, Oct. 2019 **(Invited)**
12. "Guanylyurea-functionalized conjugated polymers for efficient gene knockdown in normal human bronchial epithelium cells", M. S. Ahmed, R. Dutta, P. Manandhar, H. Unwalla, and J. H. Moon, ACS National Meeting and Exposition, Orlando, April 2019
13. "Transient membrane pore-forming conjugated polymer nanoparticles", P. Manandhar, F. Chen, J. He, and J. H. Moon, ACS National Meeting and Exposition, Orlando, April 2019
14. " π -Electron conjugated materials for better therapeutic delivery", J. H. Moon, Barry/SoFlacs, March 2019 **(Invited)**
15. " π -Electron conjugated materials for better therapeutic delivery", J. H. Moon, SUNY Binghamton University, March 2019 **(Invited)**
16. "Synthesis of antimicrobial poly(guanylyurea)s", J. H. Moon and M. S. Ahmed, ACS National Meeting and Exposition, Boston, August 2018
17. "Antimicrobial poly(guanylyurea)s", M. S. Ahmed, T. Annamalai, X. Li, A. Seddek, Y. Tse-Dinh, J. H. Moon, Bordeaux Polymer Conference, Bordeaux, France, June 2018
18. "Conjugated polymers for high cellular entry and organelle targeting", J. H. Moon, Univ. Miami, FL, September 2017 **(Invited)**
19. "Conjugated polymers for efficient cellular entry and targeted delivery", P. Manandhar, M.S. Ahmed, H. Torabi, X. Li, R. Rohman, and J. H. Moon, Gordon Research Conference, Polymer, June 2017
20. "Induced chirality of phenylene-based conjugated polymers complexed with polysaccharides", P. Manandhar and J. H. Moon, European Materials Research Society Spring Meeting, May 2017
21. "Induced chirality of phenylene-based conjugated polymers complexed with polysaccharides", P. Manandhar, T. Vokata, and J. H. Moon, The 93rd Florida Annual Meeting and Exposition, May 2017 **(Invited)**
22. "Highly efficient cellular entry and intracellular organelle targeting of conjugated polymer nanoassembly, M. S. Ahmed, R. Manian, J. H. Moon, The 93rd Florida Annual Meeting and Exposition, May 2017 **(Invited)**
23. "Synthesis of fluorescent phenyleneethynylene trimer-containing polymer", M. S. Ahmed and J. H. Moon, 253rd ACS National Meeting and Exposition, San Francisco, April 2017
24. "Chiral self-assembly of achiral p-conjugated polyelectrolytes induced by hyaluronic acid", P. Manandhar, T. Vokata, and J. H. Moon, 253rd ACS National Meeting and Exposition, San Francisco, April 2017
25. "Degradable conjugated polymers: New biomaterials for biological labeling, sensing, and delivery", J. H. Moon, 253rd ACS National Meeting and Exposition, San Francisco, April 2017 **(Invited)**
26. "Biodegradable conjugated polymers: New biomaterials for biological labeling, sensing, and delivery", J. H. Moon, Florida Gulf Coast University, September 2016 **(Invited)**
27. "Biodegradable conjugated polymers: New biomaterials for biological labeling, sensing, and delivery", J. H. Moon, Incheon National University, June 2016 **(Invited)**

28. "Semi-flexible and biodegradable conjugated polymers: Novel building blocks for biomaterials", P. Manandhar, T. Vokata, E. Mendez, R. M. Kumar, M. Twomey, and J. H. Moon, European Materials Research Society, Lille, France, May 2016
29. "Biodegradable Conjugated Polymers: New Biomaterials for labeling, sensing, and delivery ", J. H. Moon, Pusan National University, May 2016 (**invited**)
30. "Biodegradable conjugated polymers for biological labeling, sensing, and delivery", J. H. Moon, Ulsan National Institute of Science and Technology, May 2016 (**Invited**)
31. "Synthesis and self-assembly of phenylene-based conjugated polymers", P. Manandhar, T. Vokatá, S. Lee, H. M. Jung, and J. H. Moon, Korean Chemical Society Spring Meeting, May 2016 (**Invited**)
32. "Biodegradable conjugated polymers: new biomaterials for biological/biomedical labeling, sensing, and delivery", J. H. Moon, Daegu Gyeongbuk Institute of Science and Technology, May 2016 (**Invited**)
33. "Synthesis and self-assembly of phenylene-based conjugated polymers", J. H. Moon, Chonnam National University, March 2016 (**Invited**)
34. "Biodegradable conjugated polymers for biological labeling, sensing, and delivery", J. H. Moon, Korea Research Institute of Chemical Sciences, February 2016 (**Invited**)
35. "Conjugated polymer nanoparticles for improved peptide-mediated drug delivery", M. Twomey, P. Manandhar, J. H. Moon. American Chemical Society Spring 2016 Meeting, March 2016.
36. "Backbone-dependent self-assembly behaviors of phenylene-based cationic conjugated polymers", P. Manandhar, T. Vokata, J. H. Moon, American Chemical Society Spring 2016 Meeting, March 2016.
37. "Self-assembly of Conjugated Polymers with Different Backbone Structures", T. Vokata, J. H. Moon, UKC 2015, August 2015 (**Invited**)
38. "Biodegradable conjugated polymers for targeted delivery", E. Mendez, R. Kumar, T. Vokata, and J. H. Moon, GRC Polymer, June 2015
39. "Synthesis of biodegradable conjugated polymers with controlled backbone flexibility", T. Vokata, J. H. Moon, American Chemical Society Spring 2015 Meeting, Mar 21-26, 2015, Denver, CO.
40. "Conjugated polymer nanoparticles for intracellular organelle specific drug delivery", M. R. Kumar, T. Vokata, E. Memdez, J. H. Moon, American Chemical Society Spring 2015 Meeting, Mar 21-26, 2015, Denver, CO
41. "Cellular toxicity and uptake behavior of triphenyl phosphonium-containing conjugated polymer nanoparticles", E. Mendez, M. R. Kumar, and J. H. Moon, American Chemical Society Spring 2015 Meeting, Mar 21-26, 2015, Denver, CO
42. "Conjugated polymer nanoparticles for biomedical imaging and therapeutic delivery", J. H. Moon, 2nd Annual Personalized NanoMedicine Symposium, Jan 2015, Miami FL (**Invited**)
43. "Mitochondria specific conjugated polymer nanoparticles" J. H. Moon, FL-AVS, Mar. 2015, Orlando, FL (**Invited**)
44. "Semiconducting conjugated polymers for biological applications", J. H. Moon, FAME 2014, May 2014 (**Invited**)
45. "Novel Synthetic Routes to poly(p-phenylenebutadiynylene) polymers", T. Vokata, J. H. Moon, ACS 2014 Florida Annual Meeting and Exposition (FAME), May 8-10, 2014, Tampa, FL.
46. "Polymer-based Sensor for Continuous Monitoring of Ozone Exposure", T. Vokata, P. Roman, A. Singh, A. Gupta, S. Bhansali, and J. H. Moon, US-Korea Conference on Science, Technology, and Entrepreneurship (UKC) at San Francisco, Aug 2014 (**Invited**)
47. "Engineered conjugated polymer nanoparticles for glycosaminoglycan profiling in a urine simulant", M. Twomey and J. H. Moon, 248th American Chemical Society National Meeting and Exposition, San Francisco, Aug 2014
48. "Conjugated Polymer Nanoparticles for Differentiation of Glycosaminoglycans in Urine". M. Twomey, T. Vokata, and J. H. Moon, 2014, 2014 MRS Fall Meeting, Dec. 2014

49. "Facile tuning of conjugated polymer emission by incorporation of homo-coupled benzothiadiazole segments", E. Mendez and J. H. Moon, MRS Boston, Dec 2014
50. "Biodegradable Conjugated Polymers for Gene Delivery" J. H. Moon, GRC Drug Carriers in Nanomedicine, Aug 2014
51. "Semiconducting conjugated polymers: the first step toward biomedical applications", J. H. Moon, University of Florida, October 2013 (**Invited Seminar**)
52. "Conjugated polymers for cellular delivery and imaging applications", J. H. Moon, University of West Florida, September 2013 (**Invited Seminar**)
53. "Conjugated polymer nanoparticles for cellular delivery and imaging applications", J. H. Moon, E. Mendez, T. Vokata, M. Twomey, the 246th ACS National Meeting, American Chemical Society, September 2013.
54. "Semi-flexible conjugated polymers for controlled aggregation and modulated subcellular localization", T. Vokata, E. Mendez, M. Twomey, J. H. Moon, Gordon Research Conference (Polymer), June 2013.
55. "Synthesis of phenyleneethynylene-doped poly(p-phenylenebutadiynylene)s for live cell imaging" T. Vokata, J. H. Moon. Poster presented at Florida Statewide Graduate Student Research Symposium, University of South Florida, Tampa, FL, April 2013.
56. "Synthesis of phenyleneethynylene-doped poly(p-phenylenebutadiynylene)s for live cell imaging" T. Vokata, J. H. Moon, Poster presented at FIU Scholarly Forum, Florida International University, Miami, FL on March 26, 2013.
57. "Conjugated polymers for labeling, sensing, and delivery of biomedical interests", J. H. Moon, April 2013, Biomolecular Sciences Institutes Research Presentation, School of Integrated Sciences and Humanity, FIU
58. "Side chain and backbone structure-dependent subcellular localization and toxicity of conjugated polymer nanoparticles", E. Mendez and J. H. Moon, April 2013, Biomolecular Sciences Institutes Research Presentation, School of Integrated Sciences and Humanity, FIU
59. "Conjugated polymers for sensitive and specific ozone detection", T. Vokata and J. H. Moon, March 2013, NSF NERC ASSIST Industrial Day, Miami, FL
60. "Cellular Entry Pathways of Cationic Conjugated Polymers Nanoparticles", J. Lee, C. Machdo, and J. H. Moon, 2013 Materials Research Society Spring, April 2013
61. "Cellular Toxicity, Uptake and Photostability of Conjugated Polymer Nanoparticles", E. Mendez and J. H. Moon, 2013 Materials Research Society Spring, April 2013 (**MRS Poster Award**)
62. "Improved Small RNA Molecule Delivery Using Controlled Aggregation of Fluorescent Conjugated Polymers", M. Twomey and J. H. Moon, 2013 Materials Research Society Spring, April 2013
63. "Synthesis of Phenyleneethynylene-doped Poly(p-phenylenebutadiynylene)s for Live Cell Imaging", T. Vokata and J. H. Moon, 2013 Materials Research Society Spring, April 2013
64. "Conjugated polymer nanoparticles for labeling, monitoring and delivery of biological substances", J. H. Moon, Florida State University, Nov. 2012 (**Invited Seminar**)
65. "Complexation of Conjugated Polymer Nanoparticles with Hyaluronic Acid for Cancer Cell Imaging", Z. Roche and J. H. Moon, Annual Biomedical Research Conference for Minority Students (ABRCMS), Nov. 2012
66. "Semiconducting polymers for biomedical applications", J. H. Moon, Carolinas Heath Systems, Oct 2012 (**Invited Seminar**)
67. "Conjugated polymer nanoparticles for biomedical imaging and delivery", J. H. Moon, FIU Physics, Sep. 2012 (**Invited Seminar**)
68. "Conjugated polymer nanoparticles for RNA interference", Y. Lee, M. Twomey, C. Mechado, J. Lee, and J. H. Moon, GRC Drug Carriers in Medicine and Biology, Aug 2012.
69. "Conjugated polymer nanoparticles for small RNA delivery", J. H. Moon, Univ. Miami, Aug. 2012 (**Invited seminar**)

70. "Conjugated polymer nanoparticles for nucleic acid delivery", J. H. Moon, Y. Lee, J. Lee, M. Twomey, and E. Mendez, FAME 2012, May 2012
71. "Conjugated polymer nanoparticles for efficient small interfering RNA delivery", Y. Lee, J. Lee, and J. H. Moon, Materials Research Society Spring Meeting, Apr. 2012
72. "Conjugated polymer nanoparticles for small interfering RNA delivery", E. Mendez, Y. Ko, and J. H. Moon, GRC Colloidal, Macromolecular, Polyelectrolytes Solutions, Feb. 2012
73. "Conjugated polymer nanoparticles toward biomedical applications", J. H. Moon, Barry University, Sep. 2011 (**Invited Seminar**)
74. "Conjugated polymer nanoparticles for biomedical applications", J. H. Moon, BME Wallace H. Coulter Foundation Seminar Series, Sep. 2011 (**Invited Seminar**)
75. "Conjugated polymer nanoparticles for imaging and delivery", J. H. Moon, OFF 2011, March 2011.
76. "Conjugated polymer nanoparticles for fluorescence imaging and delivery", J. H. Moon, Florida Memorial University, Feb 22, 2011.
77. "Conjugated polymer nanoparticles for biomedical imaging applications", J. H. Moon, Y. Ko, and E. Mendez, American Chemical Society National Meeting, August 2010.
78. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Florida Institute of Technology, February 2010.
79. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, University of Central Florida, November 2009.
80. "Conjugated Polymer Nanoparticles for Fluorescent Labeling of Live Cells and Delivery of Biological Molecules into Plant Cells", S. Tharanga, J. H. Moon, J. Verchot-Lubicz, Microscopy and Microanalysis meeting 2010, August 2009.
81. "Conjugated polymer nanoparticles for two-photon imaging of endothelial cells", A. Rahim, S. Srinivasan, P. T. C. So, J. H. Moon, US-Korea Conference 2009, July 2009
82. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, ACS National Meeting, Salt Lake City, March 2009
83. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells" J. H. Moon, OFF Conference 2009, Florida Institute of Technology, March 2009
84. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Dankook University (Korea), December 2008
85. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Korea Research Institute of Chemical Technology (Korea), December 2008
86. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Gwangju Institute of Science and Technology (Korea), December 2008
87. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Pusan National University (Korea), December 2008
88. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Ulsan National University of Science and Technology (Korea) December 2008
89. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Pohang University of Science and Technology (Korea), December 2008
90. "Conjugated Polymer Nanoparticles for Fluorescence Imaging of Live Cells", J. H. Moon, Seminar at Kyungbook National University (Korea), December 2008

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

Grant Review:

- International: Association for International Cancer Research, King Fahd University of Petroleum and Minerals

- National: NIH BST (ad hoc 2019), NIH GDD (ad hoc 2019), NSF BMAT (panelist 2014-2019), ACS PRF (2015-2016, 2019)
- Regional: UM/FIU Collaborative Research Exchange Forum in Nanotechnology

Journal Review:

Nature Plant, Scientific Reports, Journal of the American Chemical Society, Journal of Organic Chemistry, ACS Nano, ACS Applied Materials and Interfaces, Biomacromolecules, Macromolecules, Chemical Communications, Advanced Functional Materials, Advanced Optical Materials, Macromolecular Biosciences, Biomaterials Sciences, Journal of Materials Chemistry B, Nanoscale, Macromolecular Rapid Communications, Encyclopedia of Molecular Cell Biology and Molecular Medicine, Journal of Polymer Science: Part A Polymer Chemistry, Photodiagnosis and Photodynamic Therapy, Sensors & Actuators: B. Chemical, Chemistry A European Journal, ChemBioChem.

Outreach:

- Chemistry Club co-advisor: 2014-2019
- Creator and organizer of Standing Seminar at Florida Memorial University: 2014-2019