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Summary

Research Program: Design and development of macromolecular nanoscale devices for biomedical and materials science applications with five streams: A) Delivery nanoassemblies for enhanced drug release, B) DL-DSRD strategy for advanced delivery nanoassemblies, C) Stimuli-responsive degradable nanomaterials, D) Multidentate block copolymer strategy for magnetic resonance imaging, E) Crosslinked and self-healable networks

Scholarship:

Peer-reviewed research articles: 105 (71 since 2010 at Concordia); Invited book chapters: 7; Issued international patents: 16 (since 1992); Peer-reviewed conference proceedings: 101; Invited talks: 79; Google Scholar: citation = 7003, h-index = 36, i10-index = 71

Grants:

Federal-NSERC: Discovery (renewed in 2016), CRC (renewed in 2016), CREATE, 3 Engage, 2 Connect; CFI; Quebec-FRQNT: New Researcher, Team, 4 FRQNT/CQMF Team; International: PPG, Korean Ministry of Knowledge Economy, KRICT (contract); Concordia- Individual, 3 team, IOF, start-up; **>2.3 M CD\$** for operating and equipment grants since 2010

Mentorship:

Current PhD: 3, Current MSs: 6, Graduated PhD: 1, Graduated MSs: 6, PostDoc: 5, Undergraduate project student: 13, Visiting scholar: 4, Research assistant: 6

Awards:

Tier II Canada Research Chair in Nanobioscience (2011-2021), Emerging Materials Chemistry Investigator in CSC meeting (2016), Concordia Faculty Dean's Award for Excellence in Scholarship-Mid-Career (2016), CNC-IUPAC Travel Award (2013), PCI Outstanding Paper Award (2010)

Professional:

A Section Editor-in-Chief for "Biomaterials" of *Materials* (2012-)
Editorial boards for 4 journals: *Polymers* (2009-), *Dataset Papers for Nanotechnology* (2012-), *International Research Journal of Pure and Applied Chemistry* (2013-), *Asian Journal of Materials Chemistry* (2016-)
Guest editors for *Materials* (2012) and *Molecular Pharmaceutics* (2017)
Co-organizer: 4 symposia in CSC (2012, 2016, & 2018) and Polymer Chemistry (2018) meetings
Reviewer: >245 manuscripts for >25 journals since 2005 and 12 grant proposals since 2011

Positions & Employment History

2019 -	<i>Full Professor</i> , Concordia University, Montreal, QC
2019 (1 M)	<i>Visiting Professor</i> , Sung Kyun Kwan University, Suwon, Korea
2018 (2 M)	<i>Visiting Professor</i> , KRICT, Ulsan, Korea
2011 - 2021	<i>Canada Research Chair Tier II</i> (Nanobioscience), Concordia University, Montreal, QC
2015 - 2019	<i>Associate Professor</i> , Concordia University, Montreal, QC
2010 - 2015	<i>Assistant Professor</i> , Concordia University, Montreal, QC
2007 - 2010	<i>Senior Research Scientist</i> , Dow Chemical Company, Midland, MI
1992 - 1999	<i>Research Scientist</i> , Korea Chemical Company, Seoul, Korea

Academic Background & Postdoctoral Training

2005 - 2007	NSERC PDF , Carnegie Mellon University, Pittsburgh, PA <i>Advisor: Krzysztof Matyjaszewski</i>
2004 - 2005	PDF (short term for 10 months), University of Toronto, Toronto, ON <i>Advisor: Mitchell A. Winnik</i>
2000 - 2004	Ph.D. in Chemistry, University of Toronto, Toronto, ON <i>Advisor: Mitchell A. Winnik</i>
1990 - 1992	M.Sc. in Chemistry, Hanyang University, Seoul, Korea <i>Advisor: Younghi Kwon</i>
1985 - 1989	B.Sc. in Chemistry, Hanyang University, Seoul, Korea (1985-1989)

Research Supports and Funding

NSERC: Natural Science and Engineering Research Council in Canada

FRQNT: Le Fonds de recherche du Québec – Nature et technologies

Currently-held Grants:

- **Concordia: Horizon Postdoctoral Fellowship**, Development of smart nanostructured crosslinked networks, \$76,000, 2019-2021, 100%.
- **FRQNT: Centre Québécois sur les Matériaux Fonctionnels (CQMF) Team Grant**, Chiral luminescent amino acid-based metallogels, \$20,000, 2019-2021, 33%; with L. Cuccia (Concordia)-PI & F. Vetrone (INRS).
- **MITACS: Globalink Research Award**, Incorporation of SRD micelles into polymer films of the Sericina/PVA blend as curatives for controlled drug release. \$6,000, 2019, 100%; (Intern to Concordia: Dr. Fernando Reinoldo Scremin from Federal Technological University of Paraná in Brazil)
- **Concordia: Team/Accelerator Grant**, Self-healing polymers for battery applications, \$40,000, 2019, 33%; with X. Wang (Engineering)-PI & L. Cuccia (Chemistry).
- **NSERC: Engage**, Development of a facile strategy to synthesize PLA-based reduction-responsive shell-sheddable nanoassemblies for drug delivery, \$25,000, 2019, 100%; supported with APM.
- **NSERC: Collaborative research and training experience (CREATE)**, Polymer nanoparticles (POND) for drug delivery, \$1,650,000 (\$150,000 for 1st year, \$300,000 for 5 years, 2017-2023, 12.5%); PI: M. Moffitt (Victoria) with 7 Co-PIs [Concordia (1), Victoria (3), Toronto (2), & Laval (1)].
- **FRQNT: Team Grant**. A new paradigm for therapeutic nucleic acid delivery, \$162,000, 2018-2021, 50%; with C. Wilds (Concordia).
- **FRQNT: CQMF Team Grant**, Development of robust self-healable luminescent crosslinked films based on block copolymer stabilized semiconductor conjugated polymers, \$20,000, 2018-2020, 50%; with F. Morin (Laval).
- **NSERC: Tier II Canada Research Chair (renewed)**, Development of advanced nanomaterials for biomedical and industrial applications, \$500,000, 2016-2021, 100%.

- **NSERC: Discovery Grant**, Exploring stimuli-responsive degradation: a versatile platform to develop multifunctional polymeric nanomaterials, \$150,000, 2016-2021, 100%.

Training Grants:

- **NSERC: Collaborative research and training experience (CREATE)**, Polymer nanoparticles (POND) for drug delivery, \$1,650,000 (\$150,000 for 1st year, \$300,000 for 5 years, 2017-2023, 12.5%); PI: M. Moffitt (Victoria) with 7 Co-PIs [Concordia (1), Victoria (3), Toronto (2), & Laval (1)].

Research Contractes:

- **Korea Research Institute of Chemical Technology (KRICT)**: Development of novel methods to synthesize self-healable materials, \$220,000, 2014-2016, 100%.

Operating Grants:

- **FRQNT: Centre Québécois sur les Matériaux Fonctionnels (CQMF) Team Grant**, Chiral luminescent amino acid-based metallo gels, \$20,000, 2019-2021, 33%; with L. Cuccia (Concordia)-PI & F. Vetrone (INRS).
- **NSERC: Engage**, Development of a facile strategy to synthesize PLA-based reduction-responsive shell-sheddable nanoassemblies for drug delivery, \$25,000, 2019, 100%; supported with APM.
- **FRQNT: Team Grant**. A new paradigm for therapeutic nucleic acid delivery, \$162,000, 2018-2021, 50%; with C. Wilds (Concordia).
- **FRQNT: CQMF Team Grant**, Development of robust self-healable luminescent crosslinked films based on block copolymer stabilized semiconductor conjugated polymers, \$20,000, 2018-2020, 50%; with F. Morin (Laval).
- **NSERC: Engage**, Development of robust self-healable heterogeneous crosslinked films, \$25,000, 2018, 100%; supported with Dural.
- **NSERC: Engage**, Microfluidic assembly of dual enzyme and oxidation-responsive polyesters, \$25,000, 2017, 100%; supported with Precision NanoSystems.
- **NSERC: Tier II Canada Research Chair (renewed)**, Development of advanced nanomaterials for biomedical and industrial applications, \$500,000, 2016-2021, 100%.
- **NSERC: Discovery Grant**, Exploring stimuli-responsive degradation: a versatile platform to develop multifunctional polymeric nanomaterials, \$150,000, 2016-2021, 100%.
- **FRQNT: CQMF Team Grant**, Exploration of mussel-inspired multidentate block copolymer strategy to develop water-soluble near infrared emitting quantum dots with excellent colloidal stability, \$20,000, 2016-2018, 50%; with D. Ma (INRS).
- **FRQNT: CQMF Team Grant**, A new "link-cut" technique to functionalize graphene as catalyst supports in fuel cells, \$20,000, 2015-2017, 50%; with S. Sun (INRS).
- **Korean Ministry of Knowledge Economy**: Development of self-healing polymeric materials with reversible crosslinks, \$111,000, 2013-2015, 100%.
- **FRQNT: CQMF Team grant**, Characterization of plasmas used for deposition of coatings, \$20,000, 2012-2014, 50%; with G. Laroche (Laval).
- **FRQNT: CQMF Team grant**, Multidentate block copolymers: a novel platform to stabilize superparamagnetic nanoparticles for tumor diagnosis using MRI, \$20,000, 2012-2014, 50%; with M. Fortin (Laval).
- **PPG Korea**: Development of UV-curable thiol-ene automotive top coatings, \$100,000, 2011-2013, 100%.
- **NSERC: Tier II Canada Research Chair**, Development of acid-cleavable biopolymer-based nanogels for simultaneous diagnosis and treatment of tumors using MRI, \$225,000, 2011-2016, 100%.
- **NSERC: Discovery Grant**, Development of degradable nanostructured biomaterials, \$140,000, 2011-2016, 100%.
- **FRQNT: Etablissement de Nouveaux Chercheurs**, Development of a new generation of rapid thermoresponsive hydrogels as effective tissue scaffolds, \$40,000, 2011-2013, 100%.

Concordia University: Office of the VP Research:

- Horizon Postdoctoral Fellowship, Development of smart nanostructured crosslinked networks, \$76,000, 2019-2021, 100%.
- Team/Accelerator Grant, Self-healing polymers for battery applications, \$40,000, 2019, 33%; with X. Wang (Engineering)-PI & L. Cuccia (Chemistry).
- Team/Seed Grant, Development of self-healing polymers for battery applications, \$20,000, 2018, 33%; with X. Wang (Engineering)-PI & L. Cuccia (Chemistry).
- Aid to Research Related Events (ARRE), Dissemination and CSC symposium organization, \$5,000, 2016, 100%.
- Team/Accelerator Grant, Establishing a research platform for cancer therapy, \$40,000, 2016, 33%; with P. Forgione (Chemistry) & A. Piekny (Biology).
- Team/Seed Grant, Development of integrated protocols for cancer treatment, \$20,000, 2015, 33%; with P. Forgione & A. Piekny.
- Individual/seed funding, Intrinsic self-healing polymeric materials with reversible crosslinks, \$5,767, 2013, 100%.
- Team Grant, Development of dual oligonucleotide therapeutic and drug delivery nanocarriers, \$13,000, 2012, 50%; with C. Wilds (Chemistry).
- ARRE, Organizing a Symposium at 95th Canada Chemistry Conference and Exhibition in 2012, \$1,840, 100%.
- Capital Equipment Start-up Funds, Design and processing of macromolecular nanoscale biomaterials for biomedical applications, \$100,000, 2010, 100%.
- Faculty Research Development Funds, Design and processing of macromolecular nanoscale biomaterials for biomedical applications, \$15,000, 2010, 100%.

Equipment Grants:

- **Concordia:** Support for CRC infrastructure upgrade-2nd renewal, \$30,000, 2016, 100%.
- **Concordia: ENCS Capital Research Innovation Fund,** A mini extruder for the processing, \$190,000, 2016, 20%; with H. Suong-PI.
- **Concordia: Infrastructure Operating Fund (IOF),** Support to maintain CFI infrastructure of synthetic and structural polymer research facilities, \$35,000, 2013-2017, 100%.
- **FRQNT: Etablissement de Nouveaux Chercheurs,** Particle size analyzer for characterization of dispersed particles, \$36,000, 2011, 100%.
- **Canadian Foundation of Innovation (CFI): Leaders Opportunity Funds,** Synthetic and structural polymer research facilities, \$300,000, 2011, 100%.

Travel Grants:

- **MITACS: Globalink Research Award,** Incorporation of SRD micelles into polymer films of the Sericina/PVA blend as curatives for controlled drug release. \$6,000, 2019, 100%; (Intern to Concordia: Dr. Fernando Reinoldo Scremin from Federal Technological University of Paraná in Brazil)
- **NSERC: Connect Grant,** Acidic pH-responsive drug delivery, \$2,100, 2019, 100%.
- **MITACS: Globalink Research Award,** In vivo evaluation of smart nanocarriers for cancer therapy, \$6,000, 2018, 100%; (Intern to China: Arman Moini Jazeni at Concordia).
- **NSERC: Connect Grant,** Development of integrated protocols utilizing microfluidic technology for cancer therapy, \$3,900, 2016, 100%.
- **NSERC: Interaction Grant,** Development of highly tunable polysulfide-crosslinked thiol-ene networks, \$2,200, 2014, 100%.

Peer-reviewed Journal and Book Chapter Publications:

In the listed authors, the star () highlights the principal investigator and the # indicates my trainees, including graduate and undergraduate students, postdoctoral fellows, and research associates, who contributed to works under my supervision.*

[A105] A. Moini Jazani,[#] N. Arezi,[#] C. Shetty,[#] S. H. Hong,[#] H. Li, X. Wang, J. K. Oh.^{*} Tumor-targeting intracellular drug delivery based on dual acid/reduction-degradable nanoassemblies with ketal interface and disulfide core locations. *Polymer Chemistry* **2019**, *10*, 2840–2853.

[A104] F. Yang, A. Skripka, M. S. Tabatabaei, S. H. Hong,[#] F. Ren, Y. Huang, J. K. Oh, S. Martel, X. Liu, F. Vetrone,^{*} D. Ma.^{*} Magnetic-photoluminescent nanoplatform built from large-pore mesoporous silica. *Chemistry of Materials* **2019**, *31*, 3201-3210.

[A103] J. K. Oh.^{*} (Review) Disassembly and tumor-targeting drug delivery of reduction-responsive degradable block copolymer nanoassemblies. *Polymer Chemistry* **2019**, *10*, 1554-1568.

[A102] F. Yang, A. Skripka, M. S. Tabatabaei, S. H. Hong,[#] F. Ren, A. Benayas, J. K. Oh, S. Martel, X. Liu, F. Vetrone,^{*} D. Ma.^{*} Multifunctional self-assembled supernanoparticles for deep-tissue bimodal imaging and amplified dual-mode heating treatment. *ACS Nano* **2019**, *13*, 408-420.

[A101] K. K. Bawa,[#] A. Moini Jazani,[#] C. Shetty,[#] J. K. Oh.^{*} PLA-based triblock copolymer micelles exhibiting dual acidic pH/reduction responses at dual core and core/corona interface location. *Macromolecular Rapid Communications* **2018**, *39*, 1800477.

[A100] S. H. Hong,[#] K. Larocque, D. Jaunky, A. Piekny, J. K. Oh.^{*} Dual disassembly and biological evaluation of enzyme/oxidation-responsive polyester-based nanoparticulates for targeted delivery of anticancer therapeutics. *Colloids and Surfaces B: Biointerfaces* **2018**, *172*, 608-617.

[A99] A. Moini Jazani,[#] N. Arezi,[#] K. Maruya-Li,[#] S. Jung,[#] J. K. Oh.^{*} Facile strategies to synthesize dual location dual acidic pH/reduction-responsive degradable block copolymers bearing acetal/disulfide block junctions and disulfide pendants. *ACS Omega* **2018**, *3*, 8980–8991.

[A98] S. H. Hong,[#] T. Patel,[#] S. Ip, S. Garg, J. K. Oh.^{*} Microfluidic assembly to synthesize dual enzyme/oxidation-responsive polyester-based nanoparticulates with controlled sizes for drug delivery. *Langmuir* **2018**, *34*, 3316-3324.

[A97] W. Xiao,[#] P. Legros, P. Chevallier, J. Lagueux, J. K. Oh.^{*} M. A. Fortin.^{*} Superparamagnetic iron oxide nanoparticles stabilized with multidentate block copolymers for optimal vascular contrast in T₁-weighted MRI. *ACS Applied Nano Materials* **2018**, *1*, 894-907.

[A96] F. Yang, J. Xu, A. Skripka, A. Benaya, X. Dong, S. H. Hong,[#] F. Ren, Z. Yang, F. Vetrone, J. K. Oh, X. Liu, D. Ma.^{*} An integrated multifunctional nanoplatform for deep-tissue dual-mode imaging. *Advanced Functional Materials* **2018**, *28*, 1706235.

[A95] S. Jung,[#] T. Patel,[#] J. K. Oh.^{*} Thermally-labile self-healable branched gel networks fabricated by new macromolecular engineering approach utilizing thermoreversibility. *Macromolecular Rapid Communications* **2018**, *39*, 1700575.

[A94] A. Moini Jazani,[#] J. K. Oh.^{*} Dual location dual acidic pH/reduction-responsive degradable block copolymer: synthesis and investigation of ketal linkage instability under ATRP conditions. *Macromolecules* **2017**, *50*, 9427-9436.

[A93] S. Jung,[#] J. K. Oh.^{*} Well-defined methacrylate copolymer having reactive maleimide pendants for fabrication of thermally-labile crosslinked networks with robust self-healing. *Materials Today Communications* **2017**, *13*, 241-247.

[A92] K. K. Bawa,[#] J. K. Oh.^{*} Stimuli-responsive degradable polylactide-based block copolymer nanoassemblies for controlled/enhanced drug delivery. *Molecular Pharmaceutics* **2017**, *14*, 2460-2474. (Invited article for a special issue entitled "Polymers in Drug Delivery: Chemistry and Applications")

[A91] S. Jung,[#] S. Y. Kim, J. C. Kim, S. M. Noh, J. K. Oh.^{*} Room temperature induced Diels-Alder crosslinked polymeric networks with thermal reversibility and self-healability. *RSC Advances* **2017**, *7*, 26496-26506.

[A90] R. S. Kalhapure,^{*} S. Rambharose, D. R. Sikwal, C. Mocktar, S. Singh, L. Bester, J. K. Oh, T. Govender. Enhancing targeted antibiotic therapy via pH responsive solid lipid nanoparticles from an acid cleavable lipid. *Nanomedicine: Nanotechnology, Biology, and Medicine*. **2017**, *13*, 2067-2077.

- [A89] D. Biswas,[#] S. Y. An,[#] Y. Li, X. Wang, J. K. Oh.^{*} Intracellular delivery colloidally-stable core-crosslinked triblock copolymer micelles with glutathione-responsive enhanced drug release for cancer therapy. *Molecular Pharmaceutics* **2017**, *14*, 2518-2528. (**Invited article** for a special issue entitled "Polymers in Drug Delivery: Chemistry and Applications")
- [A88] S. Y. An,[#] S. M. Noh, J. K. Oh.^{*} Multiblock copolymer-based dual dynamic disulfide and supramolecular crosslinked self-healing networks. *Macromolecular Rapid Communications* **2017**, *38*, 1600772.
- [A87] F. Ren, B. Rosal, S. Y. An,[#] F. Yang, E. Carrasco, A. Benayas, J. K. Oh, D. Jaque,^{*} Á. J. de la Fuente, F. Vetrone,^{*} D. Ma.^{*} Development and investigation of ultrastable PbS/CdS/ZnS quantum dots for near-infrared tumor imaging. *Particle & Particle Systems Characterization*. **2017**, *34*, 1600242.
- [A86] S. Jung,[#] J. T. Liu,[#] S. H. Hong,[#] D. Arunbabu,[#] S. M. Noh, J. K. Oh.^{*} A new reactive polymethacrylate bearing pendant furfuryl groups: synthesis, thermoreversible reactions, and self-healing. *Polymer* **2017**, *109*, 58-65.
- [A85] Q. Zhang,^{*} S. Yang, T. Zhu, J. K. Oh, P. Li. Soft nano-coupling between silica and gold nanoparticles based on block copolymer. *Reactive and Functional Polymer* **2017**, *110*, 30-37.
- [A84] D. Arunbabu,[#] S. M. Noh, J. H. Nam, J. K. Oh.^{*} Thermoreversible self-healing networks based on a tunable polymethacrylate crosslinker having pendant maleimide groups. *Macromolecular Chemistry and Physics* **2016**, *217*, 2191-2198.
- [A83] P. Li,[#] W. Xiao,[#] P. Chevallier, D. Biswas,[#] X. Ottenwaelde, M. A. Fortin, J. K. Oh.^{*} Extremely small iron oxide nanoparticles stabilized with catechol-functionalized multidentate block copolymer for enhanced MRI. *ChemistrySelect* **2016**, *1*, 4087-4091.
- [A82] D. G. Lee,[#] S. Y. An,[#] M. S. Um, S. M. Noh, H W, Jung, J. K. Oh.^{*} Photo-induced thiol-ene crosslinked polymethacrylate networks reinforced with Al₂O₃ nanoparticles. *Polymer* **2016**, *101*, 119-126.
- [A81] S. Y. An,[#] S. H. Hong,[#] C. Tang, J. K. Oh.^{*} Rosin-based block copolymer intracellular delivery nanocarriers with reduction-responsive sheddable coronas for cancer therapy. *Polymer chemistry* **2016**, *7*, 4751-4760.
- [A80] S. Y. An,[#] S. Sun, J. K. Oh.^{*} Reduction-responsive sheddable carbon nanotubes dispersed in aqueous solution. *Macromolecular Rapid Communications* **2016**, *37*, 705-710.
- [A79] X. Zhang, Q. Zhang,^{*} C. Xie, A. Gao, Z. Chang, J. K. Oh, P. Yang, P. Li^{*} Phosphonated Homo- and Copolymers via Ring Opening Metathesis Polymerization: T_g Tuning, Flame-resistance and Photolithography. *Journal of Polymer Science. Part A: Polymer Chemistry* **2016**, *54*, 1396-1408.
- [A78] D. Biswas,[#] P. Li,[#] J. K. Oh.^{*} Enhanced encapsulation of superparamagnetic Fe₃O₄ in acidic core-containing micelles for magnetic resonance imaging. *RSC Advances* **2015**, *5*, 107938-107948.
- [A77] Y. Wang, Q. Zhang,^{*} C. Xie, X. Zhao, J. Niu, J. Zhao, J. K. Oh, P. Li, P. Li. Free radical nano scavenger based on amphiphilic novolacs. *RSC Advances* **2015**, *5*, 95666-95673.
- [A76] P. Li,[#] P. Chevallier, P. Ramrup, D. Biswas,[#] D. Vuckovich, M.-A. Fortin, J. K. Oh.^{*} Mussel-inspired multidentate block copolymer to stabilize ultrasmall superparamagnetic Fe₃O₄ for magnetic resonance imaging contrast enhancement and excellent colloidal stability. *Chemistry of Materials*, **2015**, *27*, 7100-7109.
- [A75] T. Sun,[#] P. Li,[#] J. K. Oh.^{*} Dual location dual reduction and photo-responsive degradable block copolymer micelles: disassembly and synergistic release, *Macromolecular Rapid Communications* **2015**, *36*, 1742-1748. (**invited back cover**)
- [A74] S. Y. An,[#] D. Arunbabu,[#] J. K. Oh.^{*} Recent advances of self-healable polymeric networks. *Chemical Communications* **2015**, *51*, 13058-13070. (**invited back cover**)
- [A73] S. Y. An,[#] S. M. Noh, J. H. Kim, J. K. Oh.^{*} Dual sulfide-disulfide crosslinked networks with rapid and room temperature self-healability. *Macromolecular Rapid Communications* **2015**, *36*, 1255-1260. (**invited back cover**)
- [A72] Y. Wen,[#] J. K. Oh.^{*} Intracellular delivery cellulose-based bionanogels with dual temperature/pH-response for cancer therapy, *Colloids and Surfaces B: Biointerfaces* **2015**, *133*, 246-253.
- [A71] K. Rahimian,[#] Y. Wen,[#] J. K. Oh.^{*} Redox-responsive cellulose-based thermoresponsive grafted copolymers and in-situ disulfide crosslinked nanogels. *Polymer* **2015**, *72*, 387-394. (**Invited article**)

- [A70] N. R. Ko,[#] J. Cheong, A. Noronha, C. J. Wilds,* J. K. Oh.* Reductively-sheddable cationic nanocarriers for dual chemotherapy and gene therapy with enhanced release. *Colloids and Surfaces B: Biointerfaces* **2015**, *126*, 178-187.
- [A69] S. M. Noh, J. H. Nam, J. K. Oh., H. W. Jeong. Scratch and recovery characteristics of automotive clearcoats containing blocked polyisocyanate crosslinkers. *Journal of Coatings Technology and Research* **2014**, *12*, 85-95.
- [A68] Y. Wen,[#] J. K. Oh.* Recent strategies to develop polysaccharide-based nanomaterials for biomedical applications. *Macromolecular Rapid Communications* **2014**, *35*, 1819-1832.
- [A67] S. Y. An,[#] D. K. Lee, J. W. Hwang, J. H. Nam, H. W. Jung, S. M. Noh, J. K. Oh.* Photo-induced thiol-ene polysulfide-crosslinked materials with tunable thermal and mechanical properties. *Journal of Polymer Science. Part A: Polymer Chemistry* **2014**, *52*, 3060-3068.
- [A66] A. Cunningham,[#] N. R. Ko,[#] J. K. Oh.* Synthesis and reduction-responsive disassembly of PLA-based mono-cleavable micelles. *Colloids and Surfaces B: Biointerfaces* **2014**, *122*, 693-700.
- [A65] N. R. Ko,[#] J. K. Oh.* Glutathione-triggered disassembly of dual disulfide located degradable nanocarriers of polylactide-based block copolymers for rapid drug release. *Biomacromolecules* **2014**, *15*, 3180-3189.
- [A64] N. Chan,[#] P. Li,[#] J. K. Oh.* Chain length effect of multidentate block copolymer strategy to stabilize ultrasmall Fe₃O₄ nanoparticles. *ChemPlusChem* **2014**, *79*, 1342-1351. (**Nominated article for a special edition entitled "Early Career Series"**)
- [A63] N. Chan,[#] M. Laprise-Pelletier, A. Bianchi, M.-A. Fortin,* J. K. Oh.* Multidentate block copolymer stabilized superparamagnetic iron oxide nanoparticles with enhanced stability for magnetic resonance imaging. *Biomacromolecules* **2014**, *15*, 2146-2156.
- [A62] N. Chan,[#] N. Yee,[#] S. Y. An,[#] J. K. Oh.* Tuning amphiphilic and thermoresponsive self-assembly and in situ disulfide crosslinking of reduction-responsive block copolymers. *Journal of Polymer Science. Part A: Polymer Chemistry* **2014**, *52*, 2057-2067.
- [A61] N. Chan,[#] S. Y. An,[#] N. Yee,[#] J. K. Oh.* Dual redox and thermo-responsive double hydrophilic block copolymers with tunable thermoresponsive properties and self-assembly behavior. *Macromolecular Rapid Communications* **2014**, *35*, 752-757.
- [A60] N. Chan,[#] H. W. Jung, S. M. Noh, J. K. Oh.* Functional amphiphilic oligo(ethylene oxide) methacrylate based block copolymers: synthesis by ARGET ATRP and aqueous micellization. *Polymer International* **2014**, *63*, 858-867. (**Invited article** for a special issue entitled "Controlled radical synthesis/ATRP")
- [A59] N. R. Ko,[#] G. Sabbatier, A. Cunningham,[#] G. Laroche,* J. K. Oh.* Air-spun PLA fibers modified with reductively-sheddable hydrophilic surfaces for vascular tissue engineering: synthesis and surface modification. *Macromolecular Rapid Communications* **2014**, *35*, 447-453. (**Invited article** for a special issue entitled "Precisely controlled polymer architectures via molecular engineering")
- [A58] N. Chan,[#] S. Y. An,[#] J. K. Oh.* Dual location disulfide degradable interlayer-crosslinked micelles with extended sheddable coronas exhibiting enhanced colloidal stability and rapid release. *Polymer Chemistry* **2014**, *5*, 1637-1649. (**Invited article** for a special issue entitled "Synthesis of polymeric nanomaterials for medicine")
- [A57] S. Y. An,[#] J. W. Hwang, K. N. Kim, H. W. Jung, S. M. Noh, J. K. Oh.* Multifunctional linear methacrylate copolymer polyenes having pendant vinyl groups: synthesis and photo-induced thiol-ene crosslinking polyaddition. *Journal of Polymer Science. Part A: Polymer Chemistry* **2014**, *52*, 572-581.
- [A56] S. Aleksanian,[#] Y. Wen,[#] N. Chan,[#] J. K. Oh.* Thiol-responsive hydrogel scaffolds for rapid change in thermoresponsiveness. *RSC Advances* **2014**, *4*, 3713-3721.
- [A55] Y. Wen,[#] J. K. Oh.* Dual-stimuli reduction and acidic pH-responsive bionanogels: intracellular delivery nanocarriers with enhanced release. *RSC Advances* **2014**, *4*, 229-237.
- [A54] N. Chan,[#] B. Khorsand,[#] S. Aleksanian,[#] J. K. Oh.* Dual location stimuli-responsive degradation strategy of block copolymer nanocarriers for accelerated release. *Chemical Communications* **2013**, *49*, 7534-7536.
- [A53] B. Khorsand,[#] G. Lapointe, C. Brett, J. K. Oh.* Intracellular drug delivery nanocarriers of glutathione-responsive degradable copolymers having pendant disulfide linkages. *Biomacromolecules* **2013**, *14*, 2103-2111.

- [A52] Q. Zhang,[#] J. W. Hwang, K. N. Kim, H. W. Jung, S. M. Noh,* J. K. Oh.* New photo-induced thiol-ene crosslinked films based on linear methacrylate copolymer polythiols. *Journal of Polymer Science. Part A: Polymer Chemistry* **2013**, *51*, 2860-2868.
- [A51] B. Khorsand,[#] J. K. Oh.* pH-responsive destabilization and facile bioconjugation of new hydroxyl-terminated block copolymer micelles. *Journal of Polymer Science. Part A: Polymer Chemistry* **2013**, *51*, 1620-1629.
- [A50] K. Rahimian-Bajgiran,[#] N. Chan,[#] Q. Zhang,[#] S. M. Noh, H. I. Lee, J. K. Oh.* Tuning LCST with thiol-responsiveness of thermoresponsive copolymers containing pendant disulfides. *Chemical Communications* **2013**, *49*, 807-809.
- [A49] A. Cunningham,[#] J. K. Oh.* New design of thiol-responsive degradable block copolymer micelles. *Macromolecular Rapid Communications* **2013**, *34*, 163-168.
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Book Chapters:

- [B7] N. Chan,[#] P. Li,[#] W. Xiao,[#] D. Biswas,[#] P. Legros, M. A. Fortin, J. K. Oh.^{*} Multidentate block copolymer stabilization: a versatile strategy for colloidal superparamagnetic iron oxide nanoparticles exhibiting excellent colloidal stability and enhanced positive MRI visualization. ACS Symposium Series Volume 1285 entitled "Reversible Deactivation Radical Polymerization: Materials and Applications", edited by K. Matyjaszewski, B. S. Sumerlin, N. V. Tsarevsky, and H. Gao; p107-128 (**2018**).
- [B6] M. Fortin,^{*} J. K. Oh.^{*} Ultra-small iron oxide nanoparticles stabilized with multidendate polymers for applications in MRI. Book entitled "Clinical Applications of Magnetic Nanoparticles", edited by N. T. K. Thanh; CRC Press, Boca Raton London, p139-150 (**2017**)
- [B5] Q. Zhang,^{*} Y. Jiang, Y. Wang, P. Li, X. Zhao, C. Xie, J. Zhao, J. Niu, J. K. Oh, P. Li. New design of phenol-containing polymers as radical scavengers. Book entitled "Free Radicals: The Role of Antioxidants and Pro-Oxidants in Cancer Development", edited by B. Stone; Nova publisher, New York (**2016**)
- [B4] N. Chan,[#] N. R. Ko,[#] S. Y. An,[#] B. Khorsand,[#] J. K. Oh.^{*} Dual location reduction-responsive degradable nanocarriers: a new strategy for intracellular anticancer drug delivery with accelerated release. ACS Symposium Series Volume 1188 entitled "Controlled Radical Polymerization", edited by K. Matyjaszewski, B. S. Sumerlin, and N. V. Tsarevsky; p271-291 (**2015**).

- [B3] H. Gao,* N. Chan,# J. K. Oh,* K. Matyjaszewski.* Designing hydrogels by ATRP. Book entitled "In-situ Gelling Polymers: For Biomedical Applications" edited by X. J. Loh; Springer, p69-105 (2014).
- [B2] Q. Zhang,# S. Aleksanian,# A. Cunningham,# J. K. Oh.* New design of thiol-responsive degradable block copolymer micelles as controlled drug delivery vehicles. ACS Symposium Series Volume 110 entitled "Progress in Controlled Radical Polymerization: Materials and Applications", edited by K. Matyjaszewski, B. S. Sumerlin, and N. V. Tsarevsky; Chapter 19, p287-302 (2013).
- [B1] J. A. Yoon, J. K. Oh, W. Li, T. Kowalewski, K. Matyjaszewski.* ATRP: a versatile tool toward uniformly crosslinked hydrogels with controlled architecture and multifunctionality. Book entitled "Hydrogel Micro and Nanoparticles", edited by M. Serpe and L. A. Lyon; Wiley, p169-186 (2013).

Patents Granted

- [P16] Reactive blend and thermoreversible self-healing polymer network using the same. S. M. Noh, J. H. Nam, D. Arunbabu, J. K. Oh. KR 10-1744925 (2017).
- [P15] Preparation of functional gel particles with a dual crosslink network. K. Matyjaszewski, K. Min, J. K. Oh, J. Spanswick, N. V. Tsarevsky. US 8367051 B2 (2013).
- [P14] Hydrophobically modified alkali soluble emulsion-thickened composition for coating with good scrub resistance. J. K. Oh. US9115288B2 & EP2450410 B2 (2013).
- [P13] Surface modification of nanocrystals using multidentate polymer ligands. X.-S. Wang, M. R. Salvador, T. E. Dykstra, G. D. Scholes, M. A. Winnik, J. K. Oh. Canadian Patent Application 2506388; US2006/0088713 A1 Application (2005).
- [P12] Heat-hardenable water-system resin composition having excellent sagging and paint composition containing the same. J. K. Oh, J. M. Park, H. G. Lee. Korean Patent 583091 (2006).
- [P11] Method for preparation of phase reversing core/shell type microgel. C. H. Choi, J. K. Oh, H. G. Lee, J. M. Park, S. M. Hong. Korean Patent 577497 (2006).
- [P10] Preparation method of emulsion polymer containing target materials for paint by continuous multi-stepped emulsion polymerization. C. H. Choi, J. K. Oh, J. M. Park. Korean Patent 470033 (2005).
- [P9] Preparation method of impact resistant core-shell emulsion polymer containing pore inside. J. K. Oh, J. M. Park, Y. B. Kim, C. H. Choi. Korean Patent 468600 (2005).
- [P8] Process for preparing core-shell emulsifying polymer having weather-proof and impact-resistant properties. J. K. Oh, J. M. Park, C. H. Choi. Korean Patent 446703 (2004).
- [P7] Water-soluble metallic paint composition containing acrylic emulsion polymer having inner void. C. K. Chung, J. M. Park, J. K. Oh. Korean Patent 434838 (2004).
- [P6] Method for producing fine particulate acryl emulsion having reverse core/shell structure, and coating composition comprising the same. J. K. Oh, J. M. Park. Korean Patent 289589 (2001).
- [P5] Emulsion polymer having a vesiculated structure and the process for preparing the same. J. M. Park, C. H. Choi, J. K. Oh, S. M. Hong. US Patent 6331598 (2001) & Japanese Patent 128906 (2000).
- [P4] Emulsion polymer having a vesiculated structure. S. M. Hong, J. M. Park, C. H. Choi, J. K. Oh. GB 2340837 (2000).
- [P3] Method for preparing emulsion polymers having core-shell structure by two-step emulsion polymerization and paint composition containing the same. J. K. Oh, J. M. Park. Korean Patent 149696 (1998).
- [P2] Composition and preparation of an emulsion-polymerized polymer having cavity. J. M. Park, J. K. Oh, C. H., Choi, S. M. Hong. Expired Korean Patent 286471 (2001).
- [P1] Manufacture of metal surface reagent with a high rust and corrosion preventives S. N. Han, J. M. Park, J. K. Oh. Expired Korean Patent 90007 (1995).

Conference Presentations and Lectures

Invited Lectures

- [IL51] Yeonsei University, Department of Chemistry, Seoul, Korea, May **2019**.
[IL50] Jeonbuk National University, Department of New Materials, Cheonju, Korea, April **2019**.
[IL49] UNIST, Department of Biological Science, Ulsan, Korea, April **2019**.
[IL48] University of Montreal, Department of Chemistry, Montreal, QC, Canada, March **2019**.
[IL47] University of Quebec at Montreal (UQAM), Department of Chemistry, Montreal, Canada, December **2018**.
[IL46] Hoseo University, Department of Chemical Engineering, Cheonan, Korea, November **2018**.
[IL45] Ulsan University, Department of Chemistry, Ulsan, Korea, November **2018**.
[IL44] Busan National University, Department of Polymer Science, Busan, Korea, October **2018**.
[IL43] Hanyang University, Department of Chemistry, Seoul, Korea, October **2018**.
[IL42] Samyook University, Department of Chemistry, Seoul, Korea, October **2018**.
[IL41] Hanseo University, Department of Materials Science, Seosan, Korea, October **2018**.
[IL40] Beijing Institute of Chemical Technology, Beijing, China, September **2018**.
[IL39] The Institute of Medicinal Plant Development (IMPLAD), Beijing, China, September **2018**.
[IL38] Sungkyunkwan University, Department of Chemical Engineering, Suwon, Korea, November **2017**.
[IL37] University of Montreal, Department of Chemistry, Montreal, QC, Canada, August **2017**.
[IL36] The Institute of Medicinal Plant Development (IMPLAD), Beijing, China, August **2017**.
[IL35] University of Alberta, Department of Chemistry, Edmonton, AB, Canada, August **2016**.
[IL34] Université de Sherbrooke, Department of Chemistry, Sherbrooke, QC, Canada, April **2016**.
[IL33] Tsinghua University, Department of Chemistry, Beijing, China, December **2015**.
[IL32] Shanghai Jiao Tong University, Department of Chemistry, Shanghai, China, December **2015**.
[IL31] University of Toronto, School of Pharmacy, Toronto, ON, Canada, May **2015**.
[IL30] Carnegie Mellon University, Department of Chemistry, Pittsburgh, PA, USA, March **2015**.
[IL29] University of Waterloo, Department of Chemistry, Waterloo, ON, Canada, January **2015**.
[IL28] University of Waterloo, Department of Chemical Engineering, Waterloo, ON, January **2015**.
[IL27] Xerox Research Center of Canada, Mississauga, ON, Canada, December **2014**.
[IL26] Xi'an Jiaotong University, Xi'an, China, October **2014**.
[IL25] Xi'an University of Technology, Department of Chemistry, Xi'an, China, October **2014**.
[IL24] Korea Research Institute of Chemical Technology (KRICT), Ulsan, Korea, May **2014**.
[IL23] Hanyang University, Department of Chemistry, Seoul, Korea, May **2014**.
[IL22] Ulsan University, Department of Chemistry, Ulsan, Korea, May **2014**.
[IL21] Hoseo University, Department of Chemical Engineering, Cheonan, Korea, May **2014**.
[IL20] INRS-Energy Materials and Telecommunications, Varennes, QC, February **2014**.
[IL19] McMaster University, Department of Chemical Engineering, Hamilton, ON, Canada, October **2013**.
[IL18] Université Laval, Département de Génie des Mines, de la Métallurgie et des Matériaux, QC, Canada, February **2013**.
[IL17] Korea University, Department of Chemical and Biological Engineering, Seoul, Korea, November **2012**.
[IL16] Hoseo University, Department of Chemical Engineering, Cheonan, Korea, November **2012**.
[IL15] Ulsan National Institute of Science and Technology, Ulsan, Korea, November **2012**.
[IL14] Xerox Research Center of Canada, Mississauga, ON, Canada, November **2011**.
[IL13] Hanyang University, Department of Chemistry, Ansan, Korea, September **2011**.
[IL12] Busan University, Department of Chemistry, Busan, Korea, September **2011**.
[IL11] Inha University, Department of Chemical Engineering, Incheon, Korea, September **2011**.
[IL10] PPG Korea, Cheonan, Korea, September **2011**.
[IL9] Queen's University, Department of Chemical Engineering, Canada, March **2011**.
[IL8] Korea University, Department of Chemistry, Chochiwon, Korea, December **2010**.
[IL7] Ulsan University, Department of Chemistry, Ulsan, Korea, December **2010**.
[IL6] Hanyang University, Department of Chemistry, Seoul, Korea, December **2010**.
[IL5] PPG Korea, Cheonan, Korea, November **2010**.

[IL4] Concordia University, Department of Mechanical and Industrial Engineering, September **2010**.

[IL3] Concordia University, Department of Chemistry and Biochemistry, February **2010**.

[IL2] University of Alabama-Tuscaloosa, Department of Chemistry, February **2010**.

[IL1] West Virginia University, WVNano, USA, January **2007**.

Invited Presentations

[IP28] [**Keynote**] Dual smart block copolymer nanoassembly platform for tumor-targeting drug delivery. Workshop for Theranostics and Medical Research Center (TMRC) in Sung Kyun Kwan University, JeJu, Korea, April **2019**.

[IP27] [**Keynote**] Dual smart block copolymer nanoassembly platform for cancer therapy. Polymer Chemistry 2018, Toronto, ON, Canada, August **2018**.

[IP26] Multidentate block copolymer strategy to fabricate aqueous colloids of Fe₃O₄ nanoparticles for MRI. EMP 18, Montreal, QC, Canada, July **2018**.

[IP25] Dual disassembly of smart block copolymers for location-specific enhanced drug release, Macromolecular Science Engineering Division. 101st Canadian Chemistry Conference and Exhibition, Edmonton, AB, Canada, May **2018**.

[IP24] Tumor-targeting smart nanomedicines exhibiting enhanced drug release. 1st Korea-Quebec-France Workshop on Nanomaterials and Advanced Functional Materials, Seoul, Korea, November **2017**.

[IP23] Multidentate block copolymer strategy to fabricate aqueous colloids of iron oxide nanoparticles for MRI contrast enhancement. 254th American Chemical Society National Meeting, Washington DC, USA, August **2017**.

[IP22] ML-MSRD strategy of block copolymers for cancer therapy. 8th International Symposium on Engineering Plastics (EP2017), Xian, China, August **2017**.

[IP21] Development of intrinsic self-healable networks utilizing dynamic chemistries. Concordia Composites Day, Montreal, QC, Canada, July **2017**.

[IP20] Intrinsic self-healable polymeric networks utilizing dynamic chemistries. Macromolecular Science Engineering Division. 100th Canadian Chemistry Conference and Exhibition, Toronto, ON, Canada, May **2017**.

[IP19] Nanomedicine with smart block copolymer nanoassemblies exhibiting enhanced drug release for cancer therapy. Macromolecular Science Engineering Division. 100th Canadian Chemistry Conference and Exhibition, Toronto, ON, Canada, May **2017**.

[IP18] [**Keynote**] Tumor-targeting smart nanomedicines for enhanced drug release. Canadian Biomaterials Society. Montreal Biomaterials Research Day. Montreal, QC, Canada, February **2017**.

[IP17] [**Keynote**] Method development to synthesize effective self-healable networks. Workshop for Development of Industrial Core Technology Funded by Korean Ministry of Knowledge Economy, Ulsan, Korea, October **2016**.

[IP16] ML-MSRD strategy of block copolymer micelles for accelerated drug release and cancer therapy. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2016**.

[IP15] Stimuli-responsive degradation for development of multifunctional materials. Materials Chemistry Division (Emerging Materials Researcher). 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**.

[IP14] Multi-location multiple stimuli-responsive degradation strategy for enhanced drug release. Macromolecular Science Engineering Division. 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**.

[IP13] Design of multifunctional block copolymers and hybrid materials. CSCAC-CQMF Advanced Materials Annual Conference 2016, Montreal, QC, Canada, May **2016**.

[IP12] Multidentate block copolymer strategy to develop Fe₃O₄ exhibiting excellent colloidal stability and MRI contrast enhancement. 9th International Conference on Multi-functional Materials and Applications, Suzhou University of Science and Technology, Suzhou, China, November **2015**.

[IP11] [**Keynote**] Dual-location disulfide degradation strategy of block copolymers for accelerated release. 8th International Conference on Multi-functional Materials and Applications, Hoseo University, Korea, November **2014**.

[IP10] Dual-location reduction-responsive degradation block copolymer strategy. A symposium entitled "Controlled Radical Polymerization", 248th American Chemical Society National Meeting, San Francisco, CA, USA, August **2014**.

[IP9] Multi-location multiple stimuli-responsive degradation strategy for accelerated drug release. Macromolecular Science Engineering Division. 97th Canadian Chemistry Conference and Exhibition, Vancouver, BC, Canada, June **2014**.

[IP8] Exploring stimuli-responsive degradation platform to tune thermoresponsive properties. Materials Chemistry. 97th Canadian Chemistry Conference and Exhibition, Vancouver, BC, Canada, June **2014**.

[IP7] Self-assembled block copolymer nanocarriers with stimuli-response drug release. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**.

[IP6] Stimuli-responsive degradation: a versatile platform for developing nanomaterials for biomedical applications. Symposium 128-Nanoparticles and nanomaterials for medicine, 81st ACFAS Congress, Université Laval, Quebec City, QC, Canada, May **2013**.

[IP5] Degradable block copolymer micelles with thiol-responsive sheddable corona. Macromolecular Science Engineering Division. 95th Canadian Chemistry Conference and Exhibition, Calgary, AB, Canada, May **2012**.

[IP4] Rapid and tunable degradation of new thiol-responsive block copolymer micelles for potential drug delivery applications. Macromolecular Science Engineering Division. 95th Canadian Chemistry Conference and Exhibition, Calgary, AB, Canada, May **2012**.

[IP3] Thiol-responsive degradable block copolymer micelles. 242nd American Chemical Society National Meeting, Denver, CO, USA, August **2011**.

[IP2] [**Keynote**] A new design of stimuli-responsive degradable nanostructured materials and thiol-ene photocrosslinked coatings. Workshop for Development of Industrial Core Technology Funded by Korean Ministry of Knowledge Economy, Jeju, Korea, September **2011**.

[IP1] [**Keynote**] Use of high-throughput methods for developing low VOC waterborne coatings derived from polyurethane dispersions. 2010 Workshop for Development of Industrial Core Technology Funded by Korean Ministry of Knowledge Economy, Busan, Korea, December **2010**.

Contributed Presentations

[CP27] Dual disassembly and biological evaluation of multifunctional copolymer-based nanoassemblies for cancer therapy. 6th International Conference on Multifunctional, Hybrid and Nanomaterials: Hybrid Materials, Sitges, Spain, March **2019**.

[CP26] Dual location multiple stimuli-responsive degradation: a new strategy for accelerated drug release and cancer therapy. Canadian Society for Pharmaceutical Science Annual Meeting. Vancouver, BC, Canada, May **2016**.

[CP25] Multi-location multiple stimuli-responsive degradation strategy for enhanced drug release. Pacifichem 2015, Honolulu, Hawaii, USA, December **2015**.

[CP24] Novel biomaterials based on PLA-based block copolymers with enhanced release. 98th Canadian Chemistry Conference and Exhibition, Ottawa, ON, Canada, June **2015**.

[CP23] Multidentate block copolymer strategy for vascular magnetic resonance imaging. 4th International Conference on Multifunctional, Hybrid and Nanomaterials: Hybrid Materials, Sitges, Spain, March **2015**.

[CP22] Dual-location stimuli-responsive degradation strategy for accelerated drug release. 4th International Conference on Multifunctional, Hybrid and Nanomaterials: Hybrid Materials, Sitges, Spain, March **2015**.

[CP21] Multidentate block copolymer stabilized ultrasmall Fe₃O₄ nanoparticles for vascular magnetic resonance imaging. 97th Canadian Chemistry Conference and Exhibition, Vancouver, BC, Canada, June **2014**.

[CP20] Stimuli-responsive degradation (SRD): a versatile platform for developing multifunctional drug delivery nanocarriers with enhanced/controlled release. European Polymer Federation, Pisa, Italy, June **2013 (funded by CNC/IUPAC Travel Award 2013)**.

[CP19] Stimuli-responsive degradation (SRD): a versatile platform for developing PLA-based block copolymer micelles with enhanced/controlled release. 96th Canadian Chemistry Conference and Exhibition, Quebec City, QC, Canada, May **2013**.

[CP18] A new design of thiol-responsive degradable block copolymer micelles. 35th Canadian High Polymer Forum, Gananoque, ON, Canada, August **2012**.

[CP17] Multifunctional polymeric nanostructured materials for biomedical applications. 85th ACS Colloid and Surface Science Symposium, Montreal, QC, Canada, June **2011**.

[CP16] Disulfide-functionalized degradable polyester-containing amphiphilic block copolymers for tumor-targeting drug delivery. 94th Canadian Chemistry Conference and Exhibition, Montreal, QC, Canada, June **2011**.

[CP15] Use of high-throughput methods to develop low VOC waterborne coatings derived from polyurethane dispersions. 94th Canadian Chemistry Conference and Exhibition, Montreal, QC, Canada, June **2011**.

[CP14] Utilization of high-throughput research methods for selection of coalescing solvents for coatings derived from polyurethane dispersion based on natural oil polyols. American Coatings Conference, NC, USA, April **2010**.

[CP13] High-throughput methods for developing low VOC waterborne coatings derived from polyurethane dispersion based on natural oil polyols. 37th International Waterborne, High-Solids, and Powder Coatings Symposium, LA, USA, February **2010**.

[CP12] Mechanism of gel formation in acrylic latex containing acetoacetoxy groups. 236th American Chemical Society National Meeting, PA, USA, August **2008**.

[CP11] J. K. Oh, C. Tang, H. Gao, N. T. Tsarevsky, D. J. Siegwart, G. Sherwood, L. Peteanu, K. Matyjaszewski. Synthesis and functionalization of degradable nanogel particles prepared by inverse miniemulsion AGET ATRP. 232nd American Chemical Society National Meeting, CA, USA, September **2006**.

[CP10] J. K. Oh, F. Perineau, K. Matyjaszewski. AGET ATRP in water: A facile route to synthesis of well-controlled, high molecular weight, water-soluble polymers. 232nd American Chemical Society National Meeting, CA, USA, September **2006**.

[CP9] J. K. Oh, K. Matyjaszewski. Atom transfer radical polymerization of 2-hydroxyethyl methacrylate in protic media using activators generated by electron transfer. 230th American Chemical Society National Meeting, Washington DC, USA, August **2005**.

[CP8] J. K. Oh, K. Min, K. Matyjaszewski. Preparation of gradient copolymers in miniemulsion by atom transfer radical polymerization using activators generated by electron transfer. Gordon Research Conference: Polymer Colloids, NH, USA, July **2005**.

[CP7] M. A. Winnik, J. K. Oh, J. Wu, J. P. Tomba, Polymer diffusion in latex films of random branched polymers. American Chemical Society Meeting, August **2004**.

[CP6] J. K. Oh, M. A. Winnik. Preparation of dye-labeled latex particles based on vinyl acetate copolymer for studies of polymer interdiffusion by fluorescence energy transfer. Gordon Research Conference: Polymer East, MA, USA, June **2003**.

[CP5] J. K. Oh, M. A. Winnik. Interdiffusion in poly(vinyl acetate-butyl acrylate) copolymer latex films. 31st Canadian High Polymer Forum, QC, Canada, August **2002**.

[CP4] J. K. Oh, M. A. Winnik. Interdiffusion in poly(vinyl acetate-butyl acrylate) copolymer latex films. 76th ACS Colloid and Surface Science Symposium, MI, USA, June **2002**.

[CP3] J. K. Oh, J. Wu, M. A. Winnik. Preparation of fluorescence-labeled latex particles based on vinyl acetate copolymer. Gordon Research Conference: Polymer Colloids, NH, USA, July **2001**.

[CP2] J. K. Oh, J. M. Park. Gas permeability and mechanical properties of latex blend films. 19th Korean Society of Industrial Chemistry, Sunmoon University, Korea, February **1999**.

[CP1] J. K. Oh, J. M. Park. Preparation of submicron-sized polystyrene latex by surfactant-free seeded emulsion polymerization. 93rd Polymer Science of Korea, Seoul, Korea, April **1993**.

Trainees' Presentations in Conferences

indicates trainee; **presenting author in bold**

[TC74] **K. K. Bawa**,# A. M. Jazani,# J. K. Oh. Anomalous acetal instability facilitated under ring opening polymerization conditions. 102nd Canadian Chemistry Conference and Exhibition, Quebec City, QC, Canada, June, **2019**.

[TC73] **Y. Huang**, A. M. Jazani,[#] J. K. Oh, M. Moffitt. Microfluidic control of structure and drug delivery properties of biological stimuli-responsive block copolymer nanoparticles. 102nd CSC, Quebec City, QC, Canada, May, **2019**. (oral)

[TC72] **C. Shetty**,[#] A. Noronha, C. Wilds, J. K. Oh. Dual location dual acid/reduction degradable polyplexes for nucleic acid delivery. 102nd CSC, Quebec City, QC, Canada, May, **2019**. (oral)

[TC71] **A. M. Jazani**,[#] J. K. Oh. Dual location acid-degradable polymeric micelles with self-accelerating hydrolysis properties. 102nd CSC, Quebec City, QC, Canada, June, **2019**. (oral)

[TC70] **N. Arezi**,[#] J. K. Oh. Design and synthesis of poly(carbonate-disulfide) for drug delivery applications. 102nd CSC, Quebec City, QC, Canada, June, **2019**. (oral)

[TC69] **N. Arezi**,[#] A. M. Jazani,[#] J. K. Oh. Versatility of dual stimuli-responsive degradation (DL-DSRD) for on-demand delivery of anti-cancer drugs. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2018**. [**Best poster presentation**]

[TC68] **K. K. Bawa**,[#] J. K. Oh. Polylactide-based DL-DSRD triblock copolymer nanoassemblies: synthesis and degradation. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2018**. (oral)

[TC67] **N. Arezi**,[#] A. M. Jazani,[#] S. H. Hong,[#] J. K. Oh. Dual-location, dual acidic pH/reduction-responsive degradable nanocarriers for on-demand delivery of anti-cancer drugs. NSERC CREATE PoND Research Day, Victoria, BC, Canada, June, **2018**. (oral)

[TC66] **K. K. Bawa**,[#] J. K. Oh. Development of polylactide-based multifunctional nanomaterials exhibiting dual stimuli-responsive degradation for smart drug delivery, NSERC CREATE PoND Research Day, Victoria, BC, Canada, June, **2018**. (oral)

[TC65] **J. V. Victoria**,[#] J. K. Oh. Enhancing SRD of self-assembling polymeric nanocarriers for drug delivery. Canada Wide Science Fair, Ottawa, ON, Canada, May **2018**. [**Silver Medal Excellence Prize with Admission Bursaries from universities of The Western, British-Columbia, Ottawa, Dalhousie, and Carleton**]

[TC64] **J. V. Victoria**,[#] J. K. Oh. Enhancing stimuli responsive degradation of polymer based nanocarriers for drug delivery. SANOFI BIOGENIUS CANADA, Montreal, QC, Canada, April **2018**. [**Second Place Award**]

[TC63] **J. V. Victoria**,[#] J. K. Oh. Too big or not to big. 36th Montreal Regional Science and Technology Fair, Montreal, QC, Canada, March **2018**. [**Highest Distinction**]

[TC62] **A. M. Jazani**,[#] J. K. Oh. Synthesis of well-defined, multi stimuli-responsive degradable amphiphilic block copolymer via combining ATRP and RAFT polymerization: Toward dual reduction and acidic pH labile shell-sheddable micelles. 2nd CQMF/QCAM Annual Symposium, Montreal, QC, Canada, May, **2018**. (oral)

[TC61] **K. Larocque**, D. Jaunky, H. Vuong, S. H. Hong,[#] J. K. Oh, A. Piekny. A novel anti-cancer drug disrupts or regresses different multicellular tumor spheroids. American Society for Cell Biology Annual Meeting, Philadelphia, PA, USA, December **2017**.

[TC60] **A. M. Jazani**,[#] J. K. Oh. Smart nanomedicines with dual location dual stimuli-responsive polymeric nanoassemblies exhibiting location-specific degradation and enhanced drug release. 1st CQMF/QCAM Annual Symposium, Sherbrooke, QC, Canada, October **2017**. (oral)

[TC59] **A. M. Jazani**,[#] K. Maruya-Li,[#] J. K. Oh. Exploration of a new strategy utilizing ATRP to synthesize dual location dual acidic pH/reduction-responsive degradable block copolymer. 1st CQMF/QCAM Annual Symposium, Sherbrooke, QC, Canada, October **2017**.

[TC58] **T. Partel**,[#] S. Jung,[#] J. K. Oh. New macromolecular engineering approach utilizing thermoreversibility: Development of thermally-labile networks with robust self-healability. 1st CQMF/QCAM Annual Symposium, Sherbrooke, QC, Canada, October **2017**.

[TC57] **S. H. Hong**,[#] J. K. Oh.^{*} Dynamic polyester with dual stimuli-responsive properties for cancer targeting drug delivery. 100th Canadian Chemistry Conference and Exhibition (CSC), Toronto, ON, Canada, May **2017**. (Oral)

[TC56] **K. K. Bawa**,[#] J. K. Oh. Polylactide-based dual-location dual stimuli-responsive triblock copolymer and its nanoassemblies. 100th Canadian Chemistry Conference and Exhibition, Toronto, ON, Canada, May, **2017**.

[TC55] **A. M. Jazani**,[#] J. K. Oh. Dual location dual acidic pH/glutathione-responsive block copolymer strategy for precise control of drug release and cellular uptake. 100th Canadian Chemistry Conference and Exhibition, Toronto, ON, Canada, May **2017**.

[TC54] **K. K. Bawa**,[#] J. K. Oh. Dual-location dual-stimuli-responsive polylactide-based triblock copolymer and its nanoassemblies, 20th Canadian Society for Pharmaceutical Sciences (CSPS), Montreal, QC, Canada, May **2017**.

[TC53] **A. M. Jazani**,[#] J. K. Oh. Dual reduction/acidic pH-responsive block copolymer micelles: synthesis, self-assembly and stimuli responsive enhanced release. 20th Canadian Society for Pharmaceutical Sciences, Montreal, QC, Canada, May **2017**. [**2nd Place outstanding poster award**]

[TC52] **S. H. Hong**,[#] J. K. Oh. Synthesis of multi-stimuli responsive nanoassemblies via click chemistry for enhanced drug delivery. 20th Canadian Society for Pharmaceutical Sciences, Montreal, QC, Canada, May **2017**.

[TC51] **S. H. Hong**,[#] S. Garg, S. Ip, J. K. Oh. Microfluidic nanoassemblies of dual enzyme and oxidation-responsive polyesters. Centre Quebecois sur les Matériaux Fonctionnels (CQMF) Annual Meeting, Montreal, QC, Canada, November **2016**.

[TC50] **S. H. Hong**,[#] J. K. Oh. Development of dual enzyme/oxidation-responsive degradable systems for cancer therapy with controlled/enhanced drug release. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2016**. (oral)

[TC49] **S. Jung**,[#] D. Arunbabu,[#] J. K. Oh. Reversible polymer networks composed of maleimide bearing polymethacrylate as a multiple-crosslinker for thermoreversible self-healing. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2016**.

[TC48] **A. M. Jazani**,[#] J. K. Oh. Dual location dual reduction/pH-responsive degradable block copolymer micelles for enhanced cellular uptake and drug controlled release. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2016**. [**3rd place of outstanding poster award out of 30 posters**]

[TC47] **W. Xiao**,[#] P. Li,[#] J. K. Oh. In situ synthesis of colloidally-stable Fe₃O₄ nanoparticles coated with multidentate block copolymer for MRI contrast agents. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2016**.

[TC46] **S. Y. An**,[#] S. Sun, J. K. Oh. A new strategy to synthesize reductively sheddable carbon-based materials. 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**.

[TC45] **S. Y. An**,[#] J. K. Oh. Development of self-healing polymeric crosslinked networks using dynamic disulfide linkages. 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**. (oral)

[TC44] **W. Xiao**,[#] P. Li,[#] P. Chevallier, M. A. Fortin, J. K. Oh. Catechol-functionalized multidentate block copolymer strategy to fabricate colloidally-stable aqueous iron oxide nanoparticles for MRI. 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**.

[TC43] **S. Y. An**,[#] J. K. Oh. Development and design of polymeric nanomaterials with multifunctional applications. CSCAS-CQMF Advanced Materials Annual Meeting, Montreal, QC, Canada, May **2016**.

[TC42] **A. M. Jazani**,[#] J. K. Oh. Multi-location multiple stimuli-responsive degradation of block copolymer-based micelles for rapid and controlled release. CSCAS-CQMF Advanced Materials Annual Meeting, Montreal, QC, Canada, May **2016**.

[TC41] **D. G. Lee**,[#] S. Y. An,[#] S. M. Noh, M. S. Um, W. J. Choi, J. K. Oh, H. W. Jung. Study of Al₂O₃ nanoparticles effects on viscoelastic, mechanical and thermal properties of thiol-ene cross-linked networks. The Society of Adhesion & Interface, Daejeon, Korea, April **2016**.

[TC40] **S. Y. An**,[#] S. Sun, J. K. Oh. Carbon nanotubes stabilized with reduction-responsive polymers in aqueous solutions. CQMF Annual Meeting, Drummondville, QC, Canada, November **2015**. [**1st place of outstanding poster award**]

[TC39] **S. Y. An**,[#] J. K. Oh. Dual crosslinked polymeric networks by sulfide-disulfide exhibiting rapid self-healing ability. CQMF Annual Meeting, Drummondville, QC, Canada, November **2015** (oral). [**1st place of outstanding oral presentation award**]

[TC38] **D. Biswas**,[#] P. Li,[#] J. K. Oh. Magnetic nanoparticles encapsulated in pH sensitive amphiphilic block copolymer based micelles with acidic cores. CQMF Annual Meeting, Drummondville, QC, Canada, November **2015**.

[TC37] **S. H. Hong**,[#] S. Y. An,[#] J. K. Oh. Redox-responsive Amphiphilic Block Copolymer Derived from Rosin as a Promising Platform for Intracellular Drug Delivery. CQMF Annual Meeting, Drummondville, QC, Canada, November **2015**.

[TC36] **P. Li**,[#] J. K. Oh. Multidentate block copolymer strategy to stabilize ultrasmall superparamagnetic iron oxide nanoparticles for MRI. 98th Canadian Chemistry Conference and Exhibition, Ottawa, ON, Canada, June **2015**. (oral)

[TC35] **N. R. Ko**,[#] J. K. Oh. Glutathione-responsive degradable PLA-based nanocarriers having dual-located disulfides for enhanced release. 64th Canadian Chemical Engineering Conference, Niagara Falls, ON, Canada, October **2014**. [**1st place of CSCHE graduate student poster award**]

[TC34] **N. R. Ko**,[#] J. K. Oh. Reduction-responsive air-spun PLA nanofibers with sheddable hydrophilic surface for vascular engineering 64th Canadian Chemical Engineering Conference, Niagara Falls, ON, Canada, October **2014**.

[TC33] **Y. Wen**,[#] J. K. Oh. pH/thiol stimuli-responsive carboxymethyl cellulose based bionanogels. 36th Canadian High Polymer Forum, Gananoque, ON, Canada, August **2014**. (oral)

[TC32] **S. Y. An**,[#] J. K. Oh. Development of polysulfide-crosslinked films based on polymethacrylate copolymers using thiol-ene polyaddition. 36th Canadian High Polymer Forum, Gananoque, ON, Canada, August **2014**.

[TC31] **P. Li**,[#] N. Chan,[#] J. K. Oh. Multidentate block copolymer strategy to stabilize ultrasmall Fe₃O₄ nanoparticles for MRI contrast agent. 36th Canadian High Polymer Forum, Gananoque, ON, Canada, August **2014**.

[TC30] **S. Y. An**,[#] N. Chan,[#] N. K. Ko,[#] J. K. Oh. Polylactide based interlayer-crosslinked micellar nanocarriers for enhanced colloidal stability and rapid release. 97th Canadian Chemistry Conference and Exhibition, Vancouver, BC, Canada, June **2014**.

[TC29] **Y. Wen**,[#] J. K. Oh. Carboxymethyl cellulose based nanogels for pH and thiol responsive drug release. 97th Canadian Chemistry Conference and Exhibition, Vancouver, BC, Canada, June **2014**.

[TC28] **G. Sabbatier**, A. Larrañaga, N. R. Ko,[#] A. Cunningham,[#] A. Guay-Bégin, J. K. Oh, J. Ramòn Sarrasua, G. Laroche. Designing multifunctional nanofiber scaffold for endothelial cells adhesion and proliferation on vascular substitutes. Canadian Biomaterial Society Congress, Halifax, NS, Canada, March **2014**.

[TC27] **N. Yee**,[#] N. Chan,[#] J. K. Oh. LCST-driven crosslinked nanogels for glutathione-responsive degradable drug delivery nanocarriers exhibiting enhanced release and colloidal stability. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**. [**1st place of outstanding poster award**]

[TC26] **Y. Wen**,[#] J. K. Oh. Enhanced drug release nanocarriers: pH-sensitive, thiol-responsive carboxymethyl cellulose-based nanogel. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**.

[TC25] **N. R. Ko**,[#] B. Khorsand,[#] A. Cunningham,[#] J. K. Oh. Stimuli-responsive degradation (SRD): A Versatile platform for developing PLA-based nanomaterials. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**.

[TC24] **S. Y. An**,[#] J. K. Oh. Amphiphilic block copolymer based interlayer-crosslinked micellar nanocarriers containing disulfide at dual locations for enhanced colloidal stability and rapid release. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**.

[TC23] **G. Sabbatier**, N. R. Ko,[#] A. Cunningham,[#] J. K. Oh, G. Laroche. Conception d'échaffaudage de nanofibres pour la création de surfaces multifonctionnelles en génie tissulaire. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**.

[TC22] **A. Cunningham**,[#] J. K. Oh. Reduction-responsive degradable polylactide-based block copolymer nanocarriers with enhanced/controlled response release. CQMF Annual Symposium, Shawinigan, QC, Canada, November **2013**. (oral)

[TC21] **N. Chan**,[#] J. K. Oh. Amphiphilic multidentate block copolymer stabilization strategy for preparation of superparamagnetic iron oxide nanoparticles with enhanced stability and biocompatibility. 96th Canadian Chemistry Conference and Exhibition, Quebec City, QC, Canada, May **2013**. (oral)

[TC20] **B. Khorsand**,[#] J. K. Oh. Exploration of novel pH-responsive polymeric micelles as targeted drug-delivery carriers. CBGRC Conference, Montreal, QC, Canada, November **2012**. (oral)

[TC19] **N. R. Ko**,# J. K. Oh. Investigation of PLA-ss-PDMAEMA thiol-responsive biodegradable sheddable block copolymer micelles for dual delivery of drugs and genes. CBGRC Conference, Montreal, QC, Canada, November **2012**. (oral)

[TC18] **S. Aleksanian**,# J. K. Oh. Polymer nanotechnology: new design of block copolymer micelles for controlled drug delivery. CBGRC Conference, Montreal, QC, Canada, November **2012**. (oral)

[TC17] **B. Khorsand**,# J. K. Oh. Thiol-responsive mono-cleavable block copolymer micelles exhibiting morphology change. CQMF Annual Symposium, Trois-Rivières, QC, Canada, November **2012**.

[TC16] **N. R. Ko**,# A. M. Noronha, C. Wilds, J. K. Oh. PLA-ss-qPDMAEMA biodegradable sheddable block copolymer micelles for dual delivery of drugs and genes. CQMF Annual Symposium, Trois-Rivières, QC, Canada, November **2012**.

[TC15] **A. Cunningham**,# J. K. Oh. Novel polylactide-based block copolymer micelles with thiol-responsive degradable linkage for enhanced drug delivery strategies. CQMF Annual Symposium, Trois-Rivières, QC, Canada, November **2012**.

[TC14] **S. Aleksanian**,# J. K. Oh. Recent advances in stimuli-responsive degradable block copolymers for biomedical applications: therapeutic delivery, cellular imaging and morphology changes. CQMF Annual Symposium, Trois-Rivières, QC, Canada, November **2012**.

[TC13] **K. Rahimian**,# Q. Zhang, # J. K. Oh. Tuning LCST with controlling thiol-responsive degradation of thermoresponsive polymers containing pendent disulfides. Canadian High Polymer Forum, Gananoque, ON, Canada, August **2012**.

[TC12] **B. Khorsand**,# J. K. Oh. Mono-cleavable triblock copolymer micelles labeled with single disulfide linkages: Change in morphology upon thiol-responsive degradation. 95th Canadian Chemistry Conference and Exhibition, Calgary, AB, Canada, June **2012**.

[TC11] **N. R. Ko**,# A. M. Noronha, C. Wilds, J. K. Oh. Dual thiol- and pH-responsive biodegradable cationic sheddable micelles for dual drug and gene delivery. 95th Canadian Chemistry Conference and Exhibition, Calgary, AB, Canada, June **2012**.

[TC10] **S. Aleksanian**,# J. K. Oh. Rapid redox-responsive degradation and facile bioconjugation of polyester-based block copolymer micelles as controlled drug delivery nanocarriers. NanoQuebec Conference, Montreal, QC, Canada, March **2012**.

[TC9] **A. Cunningham**,# B. Khorsand,# J. K. Oh. Biodegradable and thiol-responsive block copolymer micelles as drug-delivery carriers. NanoQuebec Conference, Montreal, QC, Canada, March **2012**.

[TC8] **A. Cunningham**,# B. Khorsand,# J. K. Oh. New design of stimuli-responsive biodegradable amphiphilic block copolymer micelles. CBGRC Conference, Montreal, QC, Canada, November **2011**.

[TC7] **S. Aleksanian**,# J. K. Oh. New design of block copolymer micelles for controlled drug delivery. CBGRC Conference, Montreal, QC, Canada, November **2011**. (oral)

[TC6] **B. Khorsand**,# J. K. Oh. pH-responsive block copolymer micelles for controlled drug delivery. CQMF Annual Symposium, Quebec City, QC, Canada, November **2011**.

[TC5] **A. Cunningham**,# B. Khorsand,# J. K. Oh. New design of sheddable micelles of block copolymers having disulfides at block junctions prepared by ROP and ATRP. CQMF Annual Symposium, Quebec City, QC, Canada, November **2011**.

[TC4] **A. Vissa**, R. Schmidt, J. K. Oh, L. Cuccia, C. DeWolf. Self-assembly of thiol-responsive amphiphilic block copolymers at the air-water and air-solid interface. CSACS student symposium, McGill University, Montreal, QC, Canada, August **2011**.

[TC3] **S. Aleksanian**,# A. Nelson-Mendez,# J. K. Oh. Synthesis, micellization, and degradation of thiol-responsive degradable amphiphilic block copolymers for drug delivery. 94th Canadian Chemistry Conference and Exhibition, Montreal, QC, Canada, June **2011**.

[TC2] **B. Khorsand**,# J. K. Oh. Enhanced stability of iron oxide nanoparticles stabilized with functional block copolymers. 94th Canadian Chemistry Conference and Exhibition, Montreal, QC, Canada, June **2011**.

[TC1] **A. Nelson-Mendez**,# J. K. Oh. Novel thiol-responsive polyesters for controlled drug delivery. Undergraduate Research Day sponsored by Faculty of Arts and Science at Concordia University, QC, Canada, April **2011**.

Student Supervision:

Graduate Students and Postdoctoral Fellows, In Progress

- 17/9 - Phillippe Legros, Ph.D. Student, Laval University (Academic advisor)
Title: Development of magnetic hydrogels
- 18/9 - Yuhang Huang, MSc. Student, University of Victoria (Academic advisor)
Title: Exploration of microfluidics
- 18/9 Hourieh Movasat, Ph.D. Student, Concordia University (Co-supervised)
Title: Development of a new paradigm for nucleic acid delivery
- 16/1- Kamaljeet K. Bawa, Ph.D. Student, Concordia University
Title: Development of DL-DSRD PLA-based nanoassemblies for drug delivery
- 15/9 Arman Moini Jazeni, Ph.D. Student, Concordia University
Title: Studies of DL-DSRD strategy to develop novel block copolymer-based nanoassemblies
- 19/1- Twinkal Patel, MSc Student, Concordia University
Title: Development of self-healable polymeric networks
- 18/1 - Ho Ying Huang, MSc Student, Concordia University (Co-supervised)
Title: Development of self-healable polymers for lithium battery
- 18/9 Xiaolei Hu, MSc Student, Concordia University
Title: Studies of acidic pH-responsive degradation for tumor-targeting drug delivery
- 17/9- Chaitra Shetty, MSc Student, Concordia University (Co-supervised)
Title: Development of dual location-dual stimuli-responsive nucleic acid delivery
- 17/9 Newsha Arezi, MSc Student, Concordia University
Title: Studies of DL-DSRD strategy for drug delivery
- 17/9 Ge Zhang, MSc Student, Concordia University
Title: Development of thermoreversible self-healable networks covalently embedded with MDBC-stabilized CNTs

Graduate Students, Graduated

- 15/9 - 2018/4 Sung Hwa Hong, MSc thesis, Concordia University
Title: Development of dual enzyme and oxidation-responsive drug delivery systems (Defended in April 2018)
Current position: Ph.D./University of Toronto
- 15/5 - 2016/12 So Young An, MSc thesis, Concordia University
Thesis: Development of dual crosslinked polymeric materials for self-healing (Defended in December 2016)
Current position: Ph.D./University of Toronto
- 13/9-2015/11 Puzhen Li, MSc thesis, Concordia University
Title: Studies of catechol-functionalized multidentate block copolymer strategy to stabilize superparamagnetic iron oxide nanoparticles for magnetic resonance imaging (Defended in November 2015)
Current position: Research staff/Advanced Polymer Materials; then Ph.D./University of Montreal
- 12/9-2015/4 Yifen Wen, MSc thesis, Concordia University
Title: Synthesis of carboxymethyl cellulose (CMC)-based bionanogels for dual stimuli-responsive drug release and cancer therapy (Defended in March 2015)
Current position: NA
- 11/9-2015/7 Na Re Ko, Ph.D. thesis, Concordia University
Title: Development of polylactide-based reduction-responsive degradable nanomaterials for multifunctional biomedical applications (Defended in July 2015)
Current position: PDF/Kyunghee University
- 11/9-2014/7 Alexander Cunningham, MSc thesis, Concordia University

- Title: Development of stimuli-responsive degradable polylactide-based amphiphilic block copolymers for drug-delivery applications (Defended in August 2014)
Current position: Ph.D./University of Montreal
- 11/1-2014/2 Samuel Aleksanian, MSc thesis, Concordia University
Title: Study of stimuli-responsive degradation using a disulfide platform in different polymeric biomaterials (Defended in January 2014)
Current position: Technical support/Bio-Rad
- 11/1-2013/7 Behnoush Khorsand, MSc thesis, Concordia University
Title: Development of stimuli-responsive degradable block copolymer micelles as smart drug delivery nanocarriers (Defended in July 2013)
Current position: Ph.D./University of Iowa

Postdoctoral Fellows, Completed

- 16/5-2017/4 Dr. Sungmin Jung, PDF from POSTEC, South Korea
Current position: PDF/University of Toronto
- 15/1-2015/10 Dr. Dhamodaran Arunbabu, PDF from University of Hyderabad, India
Current position: Professor/MITS in India
- 14/9-2015-8 Dr. Tongbin Sun, PDF from Chengdu Institute of Organic Chemistry, Chinese Academy of Science
Current position: PDF/China
- 12/4-2013/10 Dr. Nicky Chan, PDF from Queen's University
Current position: St. Scientist/Saint Gobain in USA
- 11/8-2012/8 Dr. Qian Zhang, PDF from University of Montreal
Current position: Professor/Xian University of Technology in China

Visiting Professors/Students

- 17/9-2018/3 F. Fabia, Universidade Tecnológica Federal do Paraná (UTFPR), Brazil, MSc candidate
- ELAP scholarship
- 16/3-2017/2 Prof. N. Liu, Xian University of Technology, China
- 15/11-2016/9 Prof. W. Xiao, Sang Min University, China
- 15/11-2016/2 D. Lee, Korea University, Ph.D. candidate

Undergraduate Project Students

- 17/9 - 2018/4 K. Maruya-Li, CHEM 419 project
- 17/1 - 2017/4 T. Patal, CHEM 419 project
- 17/1 - 2017/4 T. Nuguyn, CHEM 419 project
- 15/9 – 2016/4 E. Almakais, CHEM 419 project
- 15/9 – 2016/4 J. R. Macarian, CHEM 419 project
- 15/9 – 2016/4 P. Liu, CHEM 419 project
- 14/9 - 2015/5 S. H. Hong, CHEM 419 project
- 14/9 - 2015/4 N. Yee, CHEM 450 honor thesis
- 14 Summer J. Rattee, NSERC USRA
- 13 Summer N. Yee, NSERC USRA
- 12 Summer K. Rahimian-Bajgiran, NSERC USRA
- 11 Summer S. Wem, FRSQ scholarship
- 10/9-2011/4 A. Nelson-Mendez, CHEM 419 project

Collage Project Students

- 17 Summer J. Victoria, Marianopolis Collage, FRQNT summer scholarship

Research Assistants

- 18/5 - 2018/8 K. Maruya-Li
- 17/5 - 2018/8 T. Patal

14/9 - 2016/8 D. Biswas
 12/1 - 2015/4 S. Y. An
 11/1 - 2011/6 P. Pinnel

Trainees' Awards and Scholarships

2019 A. M. Jazani (Ph.D.). MSED Oral Presentation Award, CSC Annual Meeting, \$300
 2019 - 2013 A. M. Jazani (Ph.D.). FRQNT B2X Bourse de doctorat en recherche, \$77,000
 2019 - 2022 A. M. Jazani (Ph.D.). NSERC PGSD, \$63,000
 2019 N. Arezi (MSc). National Three Minute Thesis Competition Winner in Canada
 2019 N. Arezi (MSc). Three Minute Thesis Competition/Concordia Master Winner, 3rd place in Eastern region in Canada
 2018 N. Arezi (MSc). CHPF Annual Meeting/Outstanding Poster Presentation, \$200
 2018 N. Arezi (MSc). Concordia University Conference and Exhibition Award, \$960
 2018 K. Bawa (PhD). Concordia University Conference and Exhibition Award, \$960
 2018 A. M. Jazani (Ph.D.). MITACS Research Award, \$6000
 2018 J. V. Victoria (Marianopolis College Student). Highest Distinction, College Prep International Science Award, Concordia University Faculty of Arts and Science Entrance Bursary, Super-Expo Sciences Hydro-Quebec (SESHQ) Experimentation and Design Award, and The Order of Chemists of Quebec Award. 36th Montreal Regional Science and Technology Fair.
 2018 J.V. Victoria, Second Place Award, SANOFI BIOGENIUS CANADA
 2018 J.V. Victoria, Silver Medal Excellence Prize. Canada Wide Science Fair
 2018 J.V. Victoria, Admission Bursaries from universities of The Western, British-Columbia, Ottawa, Dalhousie, and Carleton. Canada Wide Science Fair, \$12,000 university entrance scholarship.
 2017 A. M. Jazani (Ph.D.). Faculty of Arts and Science Graduate Fellowship, \$24000
 2017 S. H. Hong (MSc). Concordia University Conference and Exhibition Award, \$1,000
 2017 A. M. Jazani (MSc). CSPS/2nd Place outstanding poster award, \$500
 2017 K. Bawa (Ph.D.). International student tuition waive award, \$35,000
 2016 A. M. Jazani (MSc). Concordia University Conference and Exhibition Award, \$650
 2016 A. M. Jazani (MSc). Triskelion Fellowship in Chemistry and Biochemistry, \$5,000
 2016 A. M. Jazani (MSc). CHPF/3rd Place outstanding poster award, \$250
 2016 Dr. S. Jung (PDF). Concordia Office of VP Research/PDF Top-up Award, \$5,000
 2015 S. Y. An (MSc). Concordia Merit Scholarship, \$10,000
 2016 S. Y. An (MSc). Concordia University Conference and Exhibition Award, \$850
 2015 S. Y. An (MSc). CQMF Annual Meeting. 1st Place outstanding poster award, \$250
 2015 P. Li (MSc). Concordia University Conference and Exhibition Award, \$800
 2014 N. Lee (CHEM 450). CQMF Annual Meeting/1st Place outstanding poster award, \$250
 2014 N. R. Ko (Ph.D.). CSCHE/1st Place poster award, \$500.
 2014 Y. Wen (MSc). Kanfi-Holzbaur award, \$500
 2013 Y. Wen (MSc). International student tuition waive award, \$3,000

Awards and Recognition

2016 Emerging Materials Chemistry Investigator, Symposium award presentation (CSC, Halifax)
 2016 - 2021 Canada Research Chair Tier II Award (renewed), NSERC Canada
 2016 Dean's Award for Excellence in Scholarship (Mid-career) at Concordia University
 2013 Canadian National Committee for the International Union of Pure & Applied Chemistry (CNC-IUPAC) Travel Award
 2011 - 2016 Canada Research Chair Tier II Award, NSERC Canada

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- 2010 Paint and Coatings Industry (PCI) Outstanding Paper Award (2nd place), 37th Coatings Symposium, New Orleans, LA
- 2009 World-top 1% most cited paper for 2 years since publication, ISI Thomson
- 2004 - 2005 Postdoctoral Fellowship Award, NSERC Canada

Professional Membership:

- 2018 - Member, Regrouped as CQMF/QCAM (Quebec Centre for Advanced Materials)
- 2011 - 2017 Member, Centre Québécois sur les Matériaux Fonctionnels (CQMF)
- 2014 - Member, Canadian Society for Pharmaceutical Sciences (CSPS)
- 2010 - Associate member, Concordia Composite (CONCOM) Center
- 2010 - Member, Center for Nanoscience Research (CENSR)/Concordia
- 2010 - Member, Canadian Society of Chemistry (CSC)
- 2005 - Member, American Chemical Society (ACS)

Professional Activity and Service to Scientific Community

Editorship

- 2016 - 2017 *Guest Editor*, Molecular Pharmaceutics (ACS) entitled "Polymers in Drug Delivery: Chemistry and Applications"
- 2016 - *Editorial Board Member*, Asian Journal of Materials Chemistry
- 2013 - *Editorial Board Member*, International Research Journal of Pure and Applied Chemistry
- 2012 - *Section Editor-in-Chief*, "Biomaterials" of Materials (Biomaterials)
- 2012 *Guest Editor*, Materials entitled "Advances in Nanoscale Biomaterials"
- 2012 - *Editorial Board Member*, Dataset Papers for Nanotechnology
- 2009 - *Editorial Board Member*, Polymers

Conference Organizer/Chair

- 2018 *Organizing committee member*. Polymer Chemistry 2018, Toronto, ON, Canada, August **2018**.
- 2018 *Co-organizer* (with M. Moffitt/Victoria), Polymers in Biomedical Applications, 101st Canadian Chemistry Conference and Exhibition, Edmonton, AB, Canada, May **2018**.
- 2016 *Co-organizer* (with C. Allen/Toronto), Polymers in Drug Delivery: Chemistry and Applications, 99th Canadian Chemistry Conference and Exhibition, Halifax, NS, Canada, June **2016**.
- 2013 *Chair*, Biomedical Research, CQMF Annual Meeting, Shawinigan, QC, Canada, November **2013**.
- 2012 *Chair*, Polymers and Nanoparticles, 35th Canadian High Polymer Forum, Gananoque, ON, Canada, June **2012**.
- 2012 *Co-organizer* (with M. Shoichet/Toronto), Polymer Nanotechnology: Applications in Biomedical Imaging and Drug Deliver, 95th Canadian Chemistry Conference and Exhibition, Calgary, AB, Canada, May **2012**.

Grant Proposal Review: (total 12 reviewed)

- 2019 NSERC Discovery
- 2018 2 NSERC Discovery
- 2017 NSERC CRC Tier II
- 2017 NSERC CRD
- 2017 Swiss National Science Foundation
- 2016 NSERC Strategic Grant
- 2014 MITACS Accelerate Research; Austrian Science Fund
- 2013 FRQNT: New University Researchers

Manuscripts Review:

Total: 245 reviewed since 2007; 222 reviewed as Concordia professor (until Dec 2018)

2019 (xx), 2018 (27), 2017 (22), 2016 (26), 2015 (32), 2014 (38), 2013 (33), 2012 (16), 2011 (19), 2010 (9), 2009 (15), 2008 (5), 2007 (3)

ACS: Macromolecules, Biomacromolecules, ACS Applied Materials & Interface, ACS Applied Bio Materials, ACS Sustainable Chemistry & Engineering, ACS Book, Analytical Chemistry, Langmuir, Molecular Pharmaceuticals, Macromolecular Reaction Engineering

RSC: Polymer Chemistry, Chemical Communications, Journal of Materials Chemistry B, Nanoscale, Materials Chemistry Frontiers, RSC Advances

Wiley: Advanced Materials, Advanced Functional Materials, Macromolecular Rapid Communications, Macromolecular Chemistry & Physics, Chemistry-An Asian Journal, Macromolecular bioscience, Polymer International, Journal of Polymer Science A-Polymer Chemistry, ChemPlusChem

Elsevier: Acta Biomaterialia, Polymer, Colloids and Interface B: Biointerfaces, Journal of Controlled Release, Journal of Colloid and Interface Science, Biomaterials, Progress in Polymer Science, Progress in Organic Coatings

Others: Antioxidants & Redox Signaling, PLOS ONE, Polymers, Korea-Austria Rheology Journal, Journal of Macromolecular Science-Part A, Canadian Journal of Chemistry

Academic Service Activities

Department and Faculty

2017	Faculty research sub-committee-CURC & CRC Letters of Intent Adjudication
2017	Searching committee for faculty position of Nano-Hire
2016	Graduate award committee
2016 - 2017	Graduate screening committee for chemistry
2015 - 2017	Undergraduate award committee
2014	Searching committee for faculty position of Nanomedicinal Chemistry
2010 - 2013	Undergraduate award committee
2010 - 2013	Graduate screening committee for chemistry

Graduate Thesis Committee

2019 -	Jun-Ray Marcaine (MSc-PhD, Dr. Rafik Naccache)
2016 - 2019	Rosalynde Sonnenberg (MSc, Dr. Dajana Vuckovic)
2014 - 2018	Yuxuan Li (MSc, Dr. Xavier Ottenwaelder)
2013 - 2017	Nooshin Sheibany (MSc, Dr. Xavier Ottenwaelder)
2013 - 2016	William Copp (MSc, Dr. Christopher Wilds)
2010 - 2012	Nick Wang (MSc, Dr. Pat Forgione)
2010 - 2014	Arison Raja (MSc, Dr. Christine DeWolf & Pat Forgione)

Oral Examination Committee

2019	Dr. Zhiyuan Ma (Department of Chemistry, University of Montreal), External examiner in Ph.D. defense, March 2019.
2018	Bahareh Raisi (Department of Chemical Engineering, Concordia University), Examiner in oral comprehensive examination, December 2018.
2018	Jun-Ray Macairan (Department of Chemistry and Biochemistry, Concordia University), Examiner in oral comprehensive examination, September 2018.
2017	Dr. Jean-Richard Bullet (Department of Chemistry, University of Montreal), External examiner in Ph.D. defense, August 2017.
2017	Tarek Sabri (Department of Chemistry and Biochemistry, Concordia University), Examiner in oral comprehensive examination, May 2017.

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- 2017 Dr. Shuo Hwang (School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore), External examiner in Ph.D. defense, March 2017.
- 2016 Dr. Yihe Wang (Department of Chemistry, University of Toronto), External examiner in Ph.D. defense, December 2016.
- 2016 Dr. Mohammad Asgar Khan (Department of Mechanical Engineering, Concordia University), Examiner in Ph.D. defense, September 2016.
- 2016 Dr. Xue Li (Department of Chemistry, University of Alberta), External examiner in Ph.D. defense, August 2016.
- 2016 Dina Alizadeh (Department of Mechanical Engineering, Concordia University), External examiner in MSc defense, May 2016.
- 2016 Fei Chen (Department of Chemistry and Biochemistry, Concordia University), Examiner in oral comprehensive examination, March 2016.
- 2014 Dr. Hong Yan Liang (INRS-Energy Materials and Telecommunications), External examiner in Ph.D. defense, February 2014.
- 2013 Dr. Anjali Sharma (Department of Chemistry, McGill University), External examiner in Ph.D. defense. October 2013.
- 2012 Dr. Maksym A. Kryuchkov (Department of Chemistry, Université de Montréal), External examiner in Ph.D. defense, April 2012.
- 2010 Vahid Shaayegan (Mechanical and Industrial Engineering, Concordia University), Examiner in oral comprehensive examination, December 2010.

Chair in Oral Examination Committee

- 2014 Fei Chen (MSc), Thesis defense
- 2013 Dimitri Sitnikov (Ph.D.), Research Proposal and Comprehensive examination
- 2013 Lavinia Carabet (Ph.D.), Research Proposal and Comprehensive examination
- 2012 Paknoosh Pakarian (Ph.D.), Research Proposal and Comprehensive examination