

Selected publication

PEER-REVIEWED PUBLICATION at MSU: (*Graduate Student; **Undergraduate Student; * high school student)**

53. Quinton Wyatt*, Alex McMullen*, Deborah Ehie*, **Kyungtae Kim**, and Reza Sedaghat-Herati. **2021**. Exploring Phosphonium and ammonium Chitosan Polymers and their PEGylated analogs for high performance Gene Delivery. *European Polymer Journal*. V159, 5 October 2021, 110747
52. Husref Rizvanovic* and **Kyungtae Kim**. **2021**. Novel Cyanoximate Pt (DECO)₂ as an Anti-Cancer Drug using ML-1 Thyroid Cancer Cells. *Acta Scientific Microbiology*. June 11, 2021; Volume 4 Issue 7: 50-56.
51. Cullen Horstmann*, Victoria Davenport*, Min Zhang*, Alyse Peters**, and **Kyungtae Kim**. **2021**. Transcriptome Profile Alterations with Carbon Nanotubes, Quantum Dots, and Silver Nanoparticles: A Review. *Genes* **2021**, 12(6), 794; <https://doi.org/10.3390/genes12060794>
50. Vy Nguyen*, Jared Smothers*, Paul Ballhorn**, Anh M Ly*, Julia Villarreal**, and **Kyungtae Kim**. **2021**. Myosin V-mediated transport of Snc1 and Vps10 toward the *trans*-Golgi network. *E. Journal of Cell Biology*. Volume 100, Issue 3, April 2021, 151143
49. Cullen Horstmann* and **Kyungtae Kim**. **2021**. Comparing Transcriptome Profiles of *Saccharomyces Cerevisiae* Cells Exposed to Cadmium Selenide/Zinc Sulfide and Indium Phosphide/Zinc Sulfide. *Genes*, 12(3), 428; <https://doi.org/10.3390/genes12030428>.
48. Kafayat A Yusuf* and **Kyungtae Kim**. **2021**. Novel cyanoximates as chemotherapeutic candidates. *Acta Scientific Microbiology*. 4(4):119-134.
47. Victoria Davenport**, Cullen Horstmann*, Rishi Patel, Qihua Wu, and Kyungtae Kim. **2021**. An assessment of InP/ZnS as potential anti-cancer therapy: quantum dot treatment induces stress on HeLa cells. *J. Nanotheranostics* **2021**, 2(1), 16-32
46. Basant Hens**, Jared Smothers*, Husref Rizvanovic, Rishi Patel, Qihua Wu, and **Kyungtae Kim**. **2020**. The future of anticancer drugs: a cytotoxicity assessment study of CdSe/ZnS Quantum dots. *J. Nanotheranostics* **2020**, 1(1), 19-38.
45. Husref Rizvanovic*, Johnson Thomas, Daniel Pinheiro, and **Kyungtae Kim**. **2020**. Advances in Diagnosis and treatment of thyroid cancer. *Archive of Cancer and Oncology*, 1 (1): 1-5
44. Deborah Ehie* and **Kyungtae Kim**. **2020**. Newer Developments in gene delivery using chitosan and its derivatives. *Advances in Nanomedicine and Nanotechnology Research*, 2(2):149-158.
43. Kafayat Yusuf* and **Kyungtae Kim**. **2020**. Highlighting the Journey So Far With Cancer And Chemotherapy. *Acta Scientific Microbiology*, 3(6): 118-123.
42. Husref Rizvanovic*, Daniel Pinheiro, **Kyungtae Kim**, and Johnson Thomas. **2020**. Chlorotoxin conjugated with saporin reduced the viability of ML-1 thyroid cancer cells in vitro. *Journal of Biochemistry and Molecular Medicine*, 2(2):107-112.
41. Cullen Horstmann**, Daniel S Kim***, Chelsea Campbell**, **Kyungtae Kim**. Transcriptome Profile Alteration with Cadmium Selenide/Zinc Sulfide Quantum Dots in *Saccharomyces cerevisiae*. *Biomolecules*. **2019**. 9(11), 653; <https://doi.org/10.3390/biom9110653> (registering DOI) - 25 Oct 2019.
40. Mariel Delgado Cruz*, and **Kyungtae Kim**. **2019**. The Inner Workings of Intracellular Heterotypic and Homotypic Membrane Fusion Mechanisms. *J of Bioscience*. September, 44:91.

39. Cullen Horstmann**, Chelsea Campbell**, Daniel S. Kim***, and **Kyoungtae Kim**. 2019. Transcriptome profile with 20 nm silver nanoparticles. *FEMS Yeast Research*. Mar 1;19(2).
38. Pelin Makaraci*, Mariel Delgado Cruz*, Hyoeun McDermott*, Vy Nguyen*, Chad Highfill*, and **Kyoungtae Kim**. 2019. Yeast dynamin and Ypt6 function in parallel for the endosome-to-Golgi retrieval of Snc1. 2019 Oct;43 (10):1137-1151. doi:10.1002/cbin.11042 *Cell Biol International*.
37. **Kyoungtae Kim**. 2018. Dynamin, emerging therapeutic targets for Alzheimer's disease. *J of molecular and Cellular biology Forecast*. Vol1, p1-2. March, 2018.
36. Sara Woodman*, Christopher Trousdale*, Justin Conover**, and **Kyoungtae Kim**. 2018. Yeast Membrane Lipid Imbalance Leads to Trafficking Defects toward the Golgi. 2018 Jul;42(7):890-902. *Cell Biology International*.
35. Pelin Makaraci* and **K. Kim**. 2018. *trans*-Golgi network (TGN)-bound traffic. 2018 Apr;97(3):137-149. *E. Journal of Cell Biology*.
34. Sara Woodman* and **Kyoungtae Kim**. 2018; 3(1): 1016, p1-5 *SM Journal of Biology*. Membrane Lipids: Implication for diseases and Membrane Trafficking.
33. Christopher Trousdale*, Mariel Delgado Cruz*, Shiva Kumar Goud Gadila*, Uma Saimani*, and **Kyoungtae Kim**. 2017. The functional relationship between the retromer and yeast dynamin at the endosome. Vol 5 Issue 6, p12-23. *International Journal of Science and Technology*.
32. Uma Saimani*, Pelin Makaraci*, Jared Smothers**, Hyoeun McDermott*, and **Kyoungtae Kim**. 2017. Yeast dynamin associates with the GARP tethering complex for endosome-to-Golgi traffic. *Eur J Cell Biol*. 2017 Sep;96(6):612-621.
31. Uma Saimani* and **Kyoungtae Kim**. 2017. Traffic from the endosome towards *trans*-Golgi Network. *Eur J Cell Biol*. 2017 Mar;96(2):198-205.
30. Shiva Kumar Goud Gadila*, Michelle Williams*, Uma Saimani*, Mariel Delgado Cruz**, Pelin Makaraci*, Hyoeun McDermott*, and **Kyoungtae Kim**. 2017. Yeast dynamin Vps1 associates with clathrin to facilitate vesicular trafficking and controls Golgi homeostasis. *Eur J Cell Biol*. 2017 Mar;96(2):182-197.
29. Bryan T Banh*, Hyoeun McDermott*, Sara Woodman*, Chris Trousdale*, Shiva Kumar Goud Gadila*, Uma Saimani*, John CW Short**, and **Kyoungtae Kim**. Dynamin interaction with ESCRT proteins at the endosome. 2017. *Cell Biol Int*. 2017 Feb 9. doi: 10.1002/cbin.10738.
28. Bryan T Banh*, Hyoeun McDermott*, Michelle Williams*, Shiva Kumar Goud Gadila*, **Kyoungtae Kim**. Yeast two-hybrid library screen reveals novel binding partners of Vps1 and links Vps1 to a novel role in budding. 2016. Vol4, Issue 9, P14-20. *Int. Journal of Sci and Tech*.
27. Shiva Kumar Goud Gadila* and **Kyoungtae Kim**. Cargo trafficking from *trans*-Golgi network toward the endosome. 2016. Vol108, Issue 8. P205-218. *Biology of the Cell*.
26. Sara Woodman**, John Short**, Shiva Kumar Goud Gadila*, Hyoeun McDermott*, Alexander Linan**, Katelyn Bartlett*, Katie Schmelzle**, Adam Wanekaya and **Kyoungtae Kim**. Carbon Nanomaterials Alters Gene Expression Profiles. 2016. Vol16, number 5. pp. 5207-5217. *J. of Nanoscience and Nanotechnology*.
25. Christopher Trousdale* and **Kyoungtae Kim**. Retromer: Structure, Function, and Roles in Mammalian Disease. 2015. Nov; 94(11):513-21. *E Journal of Cell biology*.
24. Hyoeun McDermott* and **Kyoungtae Kim**. Molecular Dynamics at the Endocytic Portal and Regulations of Endocytic and Recycling Traffics. 2015. Vol. 94, Issue 6, June,

- P235-48. E. Journal of Cell Biology.
23. Katelyn Bartlett*, Shiva Kumar Goud Gadila*, Brandon Tenay*, Hyoeun McDermott*, Brett Alcox**, and **Kyoungtae Kim**. TORC2 and eisosomes are spatially interdependent, requiring optimal level of PI(4,5)P₂ for their integrity. **2015**. Vol.40, Issue 2, P299-311. Journal of Bioscience.
 22. Michelle Williams* and **Kyoungtae Kim**. From membranes to organelles: emerging roles for Dynamin-like proteins in diverse cellular processes. **2014**. Vol. 93, Issue 7, July, P267-277. E. Journal of Cell Biology.
 21. Katelyn Bartlett* and **Kyoungtae Kim**. Insight into Tor2, a budding yeast microdomain protein. **2014**. Volume 93, Issue 3, March, P87–97. E. Journal of Cell Biology.
 20. Joshua Lukehart*, Chad Highfill*, and **Kyoungtae Kim**. Vps1, a Recycling Factor for the Traffic from Early Endosome to the Late Golgi. **2013**. Dec; 91(6):455-65. Biochemistry and Cell Biology
 19. Tenay Brandon*, Kimberlin Evin**, Williams Michelle**, Dennis Juliette**, Joshua Fakilahyel**, and **Kim Kyoungtae**. Inactivation of Tor proteins affects the dynamics of endocytic proteins in early stage of endocytosis. **2013**. 38(2), 351-361. Journal of Bioscience.
 18. Alexis Brummett**, Michelle Williams**, Jacob Hayden*, **Kyoungtae Kim**. Implication of yeast dynamin-related protein Vps1 in endocytosis and organelle fission. **2013**. V2 (1). The International Journal of Science and Technology.
 17. Jacob Hayden*, Michelle Williams**, Ann Granich**, Hyoeun Ahn**, Brandon Tenay*, Joshua Lukehart*, Chad Highfill*, Sarah Dobard**, and **Kyoungtae Kim**. Vps1 in the late endosome-to-vacuole traffic. **2013**. 38(1), 73-83. Journal of Bioscience.
 16. Erin Murphy* and **Kyoungtae Kim**. Insights into eisosome assembly and organization. **2012**. V37(2), June, p 295-300. Journal of Bioscience.
 15. Joseph Harvey*, Lifeng Dong, **Kyoungtae Kim**, Jacob Hayden*, and Jianjie Wang. Uptake of Single-Walled Carbon Nanotubes Conjugated with DNA by Microvascular Endothelial Cells. **2012**. doi:10.1155/2012/196189. Journal of Nanotechnology.
 14. Erin R. Murphy*, Jacob Boxberger**, Robert Colvin**, Suk Je Lee**, Geoffrey Zahn**, Fred Loor**, and **Kyoungtae Kim**. Pil1, an eisosome organizer, plays a key role in the recruitment of synaptojanins and amphiphysins to facilitate receptor-mediated endocytosis in yeast. *Vol 90, 825-833, 2011 (October)*. E Journal of Cell biology.
 13. Daobing Wang*, Jeff Sletto**, Brandon Tenay**, and **Kyoungtae Kim**. Yeast dynamin implicated in endocytic scission and the disassembly of endocytic components. *4:2, 178-181; March/April, 2011*. Communicative and integrative Biology.
 12. Chitra Kamble*, Sandhya Jain*, Erin Murphy**, and **Kyoungtae Kim**. Requirements of Slm proteins for proper eisosome organization, endocytic trafficking, and recycling. *Vol 36(1), March/April 2011, 79-96*. Journal of Bioscience.
 11. Nannapaneni Srikant*, Wang Daobing*, Jain Sandhya*, Schroeder Blake**, Highfill Chad**, Reustle Lindsay**, Pittsley Delilah**, Maysent Adam**, Moulder Shawn**, McDowell Ryan**, and **Kyoungtae Kim**. The yeast dynamin-like protein Vps1:*vps1* mutations perturb the internalization and the motility of endocytic vesicle and endosome via the disorganization of actin cytoskeleton. **2010**. Jul:89(7):499-508. E. Journal of Cell Biology.
 10. **Kyoungtae Kim**, Michelle E. McCully, Nandini Bhattacharya, Boyd Butler, David Sept and John A. Cooper. Structure/Function Analysis of the Interaction of PIP₂ with Actin Capping

- Protein: Implication for how Capping Protein Binds the Actin Filament. **2007**. *Journal Biological Chemistry*. 282, 5871-5879
9. Sarawit Bruck, Tobias Huber, Rob Ingham, **Kyoungtae Kim**, Hanspeter Niederstrasser, Paul Allen, Tony Pawson, John Cooper, Audrey S. Shaw. **2006**. Identification of a Novel Inhibitory Actin-Capping Protein Binding Motif in CD2-associated Protein. *J. Biol. Chem.* 2006. Vol. 281, Issue 28, 19196-19203.
 8. **Kyoungtae Kim**, Brian J. Galletta, Kevin O. Schmidt, Fanny S. Chang, Kendall J. Blumer and John A. Cooper. **2006**. Actin-based Motility during Endocytosis in Budding Yeast. *Molecular Biology of Cell*. 2006. Vol.17, 1354-1363.
 7. David A. Canton, Mary Ellen K. Olsten, **Kyoungtae Kim**, Amanda Doherty-Kirby, Gilles Lajoie, John A. Cooper and David W. Litchfield. 2005. The Pleckstrin Homology Domain-Containing Protein CKIP-1 is Involved in Regulation of Cell Morphology and the Actin Cytoskeleton and Interactions with Actin Capping Proteins. *Molecular and Cellular Biology*. 2005. May Vol 25 (9);3519-3534.
 6. Chi RJ, Olenych SG, **Kim KT**, Keller TC 3rd. 2005. Smooth Muscle alpha Actinin Interaction with Smitin. *Int J Biochem Cell Biol*. 2005. Jul;37(7):1470-82
 5. **Kyoungtae Kim**, Peng Hou, Jerome L. Gorski, John A. Cooper. Effect of Fgd1 on Cortactin in Arp2/3 Complex-mediated Actin Assembly. 2004. *Biochemistry*. Mar 9; 43(9): 2422-7.
 4. **Kyoungtae Kim**, Atsuko Yamashita, Martin A. Wear, Yuichiro Maeda, John A. Cooper. 2004. Capping Protein Binding to Actin in Yeast: Biochemical Mechanism and Physiological Relevance. *J Cell Biol*. Feb 16; 164(4): 567-80. Epub 2004 Feb 09.
 3. Wear MA, Yamashita A, **Kim KT**, Maeda Y, Cooper JA. 2003. How Capping Protein Binds the Barbed End of the Actin Filament. *Curr Biol*. Sep 2; 13(17): 1531-7.
 2. **Kyoungtae Kim** and Thomas C.S. Keller. 2002. Smitin, a Novel Smooth Muscle Titin-like Protein, Interacts with Myosin Filaments *in vivo* and *in vitro*. *J Cell Biol*. 156: 101-111.
 1. Keller, T.C.S., K, Eilertsen, M, Higginbotham, S, Kazmierski, **K.T. Kim**, and M, Velichkova. 2000. Role of Titin in Non-muscle and Smooth Muscle Cells. *Adv Exp Med Biol*. 481: 265-77.

TECHNICAL REPORT (Peer Reviewed)

1. Chelsea Campbell, Cullen Horstmann, Al Kennedy and **Kyoungtae Kim**. Saccharomyces Cerevisiae (Budding yeast) Standard Operating Procedure Series: Toxicology. **2018**

TECHNICAL REPORT (non-Peer Reviewed)

1. Kyoungtae Kim. Quantum dot-mediated cell cytotoxicity. 2021

NON-PEER-REVIEWED PUBLICATION: (Undergraduate Student)**

1. Chad Highfill** and **Kyoungtae Kim**. 2009. P25-31. Vol2. LOGOS (MSU). Vps1 functions in intracellular trafficking during endocytosis.