

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

60. Seth Harris and **Kyoungtae Kim**. 2023. Apoptotic pathway protein expression variance in metal oxide and quantum dot treated HeLa cells. **Micropublication**. In press.
59. Nhi Le and **Kyoungtae Kim**. 2023. Current Advances in the biomedical applications of quantum dots: Promises and Challenges. In press.
58. Nhi Le, Jonathan M Routh, Cameron J Kirk, Qihua Wu, Rishi J Patel, Chloe E Keyes, **Kyoungtae Kim**. 2023. Red CdSe/ZnS QDs' Intracellular Trafficking and Its Impact on Yeast Polarization and Actin Filament. *Cells*, Feb 2;12(3):484. doi: 10.3390/cells12030484
57. Alyse N Peters, Nakaja A Weaver, Kathryn S Monahan, **Kyoungtae Kim**. 2023. Non-ROS-mediated cytotoxicity of ZnO and CuO in ML-1 and CA77 Thyroid cancer cell lines. *International Journal of Molecular Sciences*, 24, 4055. <https://doi.org/10.3390/ijms24044055>
56. Nhi Le, Min Zhang, and **Kyoungtae Kim**. 2022. Quantum Dots and their Interaction with Biological Systems. *Int. J. Mol. Sci.* 2022, 23(18), 10763; <https://doi.org/10.3390/ijms231810763>
55. Min Zhang\*, Daniel S Kim\*\*, Rishi Patel, Qihua Wu, and **Kyoungtae Kim**. 2022. Intracellular Trafficking and Distribution of Cd and InP Quantum Dots in HeLa and ML-1 Thyroid Cancer Cells. *Nanomaterials* 2022, 12, 1517.
54. Daniel S Kim\*\*, Min Zhang\*, Nhi Le\*\*, Seth Harris\*\*, and **Kyoungtae Kim**. 2022. Effects of platinum-based chemotherapeutic agents on ML-1 Thyroid cancer cells. *Acta Scientific Microbiology*. May 5 (5), 2022.
53. Quinton Wyatt\*, Alex McMullen\*, Deborah Ehie\*, **Kyoungtae 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 **Kyoungtae Kim**. 2021. Novel Cyanoximate Pt (DECO)<sub>2</sub> 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 **Kyoungtae 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 **Kyoungtae 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 **Kyoungtae 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 **Kyoungtae Kim**. 2021. Novel cyanoximates as chemotherapeutic candidates. *Acta Scientific Microbiology*. 4(4):119-134.
47. Victoria Davenport\*\*, Cullen Horstmann\*, Rishi Patel, Qihua Wu, and Kyoungtae 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 **Kyoungtae 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 **Kyoungtae Kim**. 2020.

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44. Deborah Ehie\* and **Kyoungtae 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 **Kyoungtae Kim**. 2020. Highlighting the Journey So Far With Cancer And Chemotherapy. Acta Scientific Microbiology, 3(6): 118-123.
42. Husref Rizvanovic\*, Daniel Pinheiro, **Kyoungtae 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\*\*, **Kyoungtae 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 **Kyoungtae 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)P<sub>2</sub> 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
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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

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  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.
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  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.
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**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.*