CURRICULUM VITAE: Kyoungtae Kim

Professor, Department of Biology
Temple 223, 901 S National Ave
Springfield, Mo 65897
Phone: 417-836-5440
Email: kkim@missouristate.edu

EDUCATION:

Post-Doc. 2005	Cell biology/Physiology, Washington University in St. Louis, MO.
Ph.D. 2001	Biology, Florida State University, Tallahassee, FL.
M.A. 1993	Biological Science, Kyungpook National University, Taegu, Korea.
B.A. 1988	Biological Science, Kyungpook National University, Taegu, Korea.

EMPLOYMENT (RESEARCH):

2024-Present	Distinguished Professor, Missouri State University
2023-present	Roy Blunt Life Science Endowed Professor
2017-2021	Associate Dean, College of Natural and Applied Science.
2016-2024	Professor, Missouri State University: "Endocytosis, membrane Trafficking, plasma membrane organization, and nanomaterial cytotoxicity."
2011-2016	Associate Professor, Missouri State University: "Endocytosis, membrane Trafficking, eisosome organization, and nanomaterial cytotoxicity."
2006-2011	Assistant Professor, Missouri State University: "Actin-based endocytosis and membrane organization" (Independent research).
2002-2005	Post-doctor, Cell Biology/Physiology, Washington University: "Structure and Function of Actin Capping Protein" (John Cooper Lab)
1996-2001	Ph.D., Biology, Florida State University: "Characterization of Titin-like protein in Smooth Muscle" (Thomas Keller lab).
1994-1995	Special Student, Biological Science, Florida State University: "The Function of Cellular Titin in Brush Border" (Advisor: Thomas Keller).
1990-1993	M.A., Biological Science, Kyungpook National University, Taegu, Korea. "The Effect of Transforming Growth Factor-β_2 on the Chondrogenesis and Expression of Fibronectin" (Thesis Advisor: Dr. Shinsung Kang). "The Regulatory Mechanism of Differentiation of Rat Monocytes to Macrophage" (Project Advisor: Dr. Shinsung Kang).
1988-1990	Army service, Korea (Specialty in Biochemical Service: Biochemical Gas).

EMPLOYMENT (TEACHING):

2024-present.	Distinguished Professor
2017-2021	Associate Dean, College of Natural and Applied Sciences.
2016-2024.	Professor, Missouri State University, MO
2011-2016	Associate Professor, Missouri State University, MO.
2006-2011	Assistant Professor, Missouri State University, MO.
2005-2006	Visiting Assistant Professor, Missouri State University, Springfield, MO.
2001	Teaching Assistant, Signal Transduction of Flagella Regeneration in Green algae Chlamydomonas (Lab, L. Keller), Florida State University (FSU).
2000	Teaching Assistant, Cell motility Lab Course (Dr. Thomas Roberts), FSU.

2000	Teaching Assistant, Cell Structure and Function (Dr. Thomas Keller), FSU.
1990-1993	Teaching Assistant, Animal Physiology (Dr. S. Kang), Kyungpook National Univ. Korea
1987	Assistant Teacher, Biology, Pyunglee High School, Korea.

PROFESSIONAL ORGANIZATIONAL MEMBERSHIPS:

1998-present	American Society of Cell Biology.
2008-present	American Society of Microbiology.
2010-present	National Academy of Science, MO.
2017-present	Member of the Council of Colleges of Art & Science (CCAS)
2017-present	National Professional Science Masters Association (NPSMA)
2023-present	Society of Toxicology (SOT)

Administration-related positions or service

2024 (March -Present)	Department Head
2023 (September-Feb. 2024)	Interim Department Head
2023 (August)	Acting Department Head
2021-present	Assistant Departmental Head
2017-2021	Associate Dean

AWARD and HONORS

2025, Faculty who has made an impact on Lena Singleton's and Justin Curtis's life (MSU)
2024, Outstanding Graduate Mentor Award nominee
2024, Faculty who has made an impact on Lena Singleton's life (2014)
2023, Faculty Excellence in Research (CNAS)
2023, Roy Blunt Life Science Professorship Award Recipient
2022, Certificate of Appreciation from the GREAT (Globally Responsive Edu and Teaching) Program
2022, Professor Salary Incentive Award (MSU)
2022, CNAS Diversity Award
2021, Faculty Excellence in Teaching (CNAS)
2021, Nominee for CNAS Diversity Award (CNAS)
2021, Outstanding Thesis Advisor (MSU)
2021, Nominated, Curtis P. Lawrence Excellence in Advising Award (MSU)
2020, Faculty Excellence in Research (CNAS)
2020, Outstanding Graduate Mentor (MSU)
2020, Foundation Award for teaching (MSU)
2019, Student Award for Faculty Excellence (CNAS)
2019, Faculty Excellence in Service Award (CNAS)
2019, Grand Prize Teacher Award, Ozark Science and Engineering Fair (Regional)
2019, Ozark Science and Engineering Fair Teacher Award, senior division (Regional)
2019, Nominated, Curtis P. Lawrence Excellence in Advising Award (MSU)
2018, Atwood Research and Teaching Award (CNAS): **highest honor** in the college
2018, Foundation Award for Research (MSU)
2018, Faculty who has made an impact on Christopher Heye's life (MSU)
2017, KSMU Ozark Public Radio STEM spots with David Cornelison (STATE)

2017, Special Recognition, Mind's eye (MSU)
2017, Faculty Excellence in Research Award (CNAS)
2017, Governor's Award for Excellence in Education (STATE): **highest honor** in the state
2016, Faculty who has made an impact on Christopher Heye's life (2016)
2016, Faculty who has made a significant impact on Hannah Ingram's life (MSU)
2016, Governor's Excellence in Teaching Award (MSU)
2016, Excellence in Teaching Award (CNAS)
2016, Outstanding Graduate Mentor nominee (MSU)
2016, Foundation Award for Teaching (MSU)
2015, Outstanding Graduate Mentor Award (MSU)
2014, Student Award for Faculty Excellence (CNAS)
2014, Missouri State Outstanding Graduate Mentor Nominee
2014, Peer-selected CNAS Faculty Excellence Nominee
2013, Special Recognition for Exampling the Missouri State Experience through Student Engagement, Missouri State University
2012, Excellence in Teaching Award, College of Natural Applied Science
2008, Outstanding Member of the Faculty of Missouri State by Theta Chi Fraternity

GRANT/Contract Awards

2027-2031	Partnership for Ecological Monitoring in the NPS ($442,832, grant Admin and PI)
2023-2028	National Science Foundation. Katangur et al. ELATA: Enhanced Learning and Teaching Experience ($1.499,928)
2023-2027	Grant related to National Park Service Partnership with MSU (grant admin or PI)
2023	Course Development Funds ($1,600)
2023-2024	Faculty Research Grant ($7,500)
2023-2026	Roy Blunt Life Science Professorship ($100,000)
2023-2024	Eighth round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $15,000
2023	Anticancer drug foundation fund ($2,500) to support Prithvi Nagarajan
2023	Provost Equipment Funding ($25,000) to acquire an Ultracentrifuge and rotors
2022	Seventh round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $90,499
2020-present	PSM student GA funds by Clinvest (yearly contract, started in 2020)- fully pay stipend and tuition for one PSM student
2021-2022	Faculty Assessment of Student learning grant: MNAS Exit Survey Assessment grant ($500) with Tiglet Besara and Gate Breedlove
2021	MoLSAMP-participation grant (with Tayo Obafemi-Ajayi), (two undergrad students-stipend for one year). ~$3,000.
2021	Sixth round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $15,000
2020	Fifth round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $15,000
2020	Faculty Research Grant-MSU. $5,000
2020	MoLSAMP MoLSAMP-participation grant (with Tayo Obafemi-Ajayi),

	(two undergrad students-stipend for one year, one GA). ~$ 20000.
2019	Thyroid Cancer project, Mercy. $300
2019	MoLSAMP-participation grant (with Tayo Obafemi-Ajayi), ~$20,000 (summer Salary to Kim + one undergrad student stipend and one GA for one year)
2019	Thyroid Cancer project, Mercy. $2,500
2019	MSU summer Faculty Fellowship. $6,000
2019	BIO-matching for Curriculum grant to support a TA ($2,700)
2019	Curriculum Innovation Grant (High Impact Practices in Cell Biology). $4,000
2019-2020	Fourth round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $15,000
2018-2019	Atwood Faculty research/teaching award, $2,500
2018	Mercy: Measuring levels of apoptosis in thyroid cancer cells treated with chlorotoxin-SAP, $4,600
2018	Provost Funding "Solving 3-D structure of yeast dynamin", $3,500.
2018	Mercy: Effect of Chlorotoxin on thyroid cancer, $2,200.
2018	International Travel Fund. Keynote speaker at World Yeast Congress, $1,987.
2017-2018	Third round of Nanomaterial toxicity test funding from ERDC and Brewer Science. $15,000.
2017-2018	Faculty Research Grant. $7,500
2017	Summer GA Fund grant (~$3,000)
2016-2017	Second round of Nanomaterial toxicity test funding from ERDC and Brewer Science ($10,000)
2016	MSU summer Faculty Fellowship. $6,000.
2015-2016	Nanomaterial toxicity test funding from ERDC and Brewer Science. $10,000
2015	International travel funding award (Sixteenth's International meeting of Carbon Nantotube, in Nagoya, Japan). $3,500.
2015	MSU Provost's Research Incentive Funding. Acquisition of microfluidic perfusion system for long-term live imaging. $25,000.
2014-2015	Faculty Research Grant. Investigation of dynamin in inner-cellular material transport systems. $7,366
2014-2015	ERDC: Research Incentive Funding (Carbon Nanotube project). $7, 000
2013-2014	ERDC: Research Incentive Funding (Carbon Nanotube project). $10, 000
2012-2013	Faculty Research Grant. Implication of Vps1 in Membrane Recycling and its Interaction with Recycling Factors. $7,370.
2011.	MSU summer Faculty Fellowship. Novel roles of Vps1 on endocytic and recycling traffics. $6,000.
2010.	MSU Faculty Research Grant. The endocytic role of Dynamin-like protein Vps1 in Yeast $7,500.
2009-2012.	MRI-RUI: Acquisition of a Spinning Confocal Microscope to Advance Interdepartmental Research and Training at Missouri State University (Proposal Number: 0923024). $350,000.
2007-2009.	MSU Provost's Research Incentive Funding. Use of Real-Time PCR to Quantify Sources of Fecal Pollution in Ozark Streams: Participants (with John Steiert). $77,000.
2007.	MSU Faculty Research Grant. Uncovering the Molecular Mechanisms of

Endocytic Vesicle Motility in Yeast. $7,500.
2007. MSU Summer Faculty Fellowship. Molecular Binding Mechanism of Capping protein-phospholipid interaction. $5,000.
2003-2005. American Heart Association. Project Title: Structure and Functional Relationship of Actin Capping Protein. $80,685.

RESEARCH GRANTS APPLIED (since employment at MSU):

2024 NSF RAMP grant (Participant)
2023 USA-Egypt joint Grant (co-PI)
2023 NSF-RUI (Research Grant).
2022-2023 NSF-MRI with Siming Liu as the PI: **Acquisition of GPU enabled HPC for STEM Research Innovations**
2018-2021 NSF-MRI
2014. NSF-RUI (Research Grant).
2014. NSF-REU (Research Training Grant).
2011. NSF-RUI (Research Grant).
2010. NSF-RUI (Research Grant).
2009. Electron Microscopy Grant.
2009. American Heart Association-SDG.
2009. NSF-MRI.
2009. MSU Faculty research Grant.
2008. American Heart Association-GIA.
2008. American Heart Association-SDG.
2008. NIH AREA (R15).
2008. CCSA full proposal submission.
2008. MSU pre-NSF-MRI proposal for electron microscope.
2007. MSU Provost's Research Incentive Funding (RT-PCR, with Jack Steiert).
2006. American Heart Association-GIA.
2006. American Heart Association-SDG.
2006. MSU Provost's Research Incentive funding for 2007 (with Laszlo Kovacs).
2006. MSU Faculty Research Grant.
2006. MSU Summer Faculty Fellowship.

AWARDs RECEIVED by Students Mentored by Dr. Kim

2022 Student Employee Award: Nhi Le (MSU finalist, MASEA Regional Student Employment Association finalist, and one of the ***top 19 student employees in the nation***)

OUTSTANDING Master's THESIS AWARDS by advisee students (Biology)

Name	Year	Title
Cullen Horstmann	2021	Identifying and Comparing Transcriptome Alterations in Saccharomyces cerevisiae Exposed to a Variety of Quantum Dots
Hyoeun McDermott	2015	Novel physical interactions of Vps1 with major intracellular traffic regulators
Katelyn Bartlett	2014	TORC2 and eisosomes are spatially interdependent, requiring optimal level of PI(4,5)P2 for their integrity

Jacob Hayden	2012	Vps1's implication on late endosome-to-vacuole traffic

OUTSTANDING TEACHING ASSISTANT AWARDS by Research advisees (Biology)

- Husref Rizvanovic. 2019
- Hyoeun McDermott. 2014
- Katelyn Bartlett. 2013
- Michelle Williams. 2013

OUTSTANDING RESEARCH ASSISTANT nominee by Research advisees (Biology)

- Jared Smothers. 2018

DISTINGUISHED TEACHING ASSISTANT AWARD by Research advisees (University)

- Midwest Regional Distinguished Teaching Assistant Nominee, 2014-15 (Hyoeun McDermott)
- MSU Distinguished Teaching Assistant Award, 2014-15 (Hyoeun McDermott)
- Midwest Regional Distinguished Teaching Assistant Nominee, 2013-14 (Katelyn Bartlett)
- MSU Distinguished Teaching Assistant Award, 2013-14 (Katelyn Bartlett)

DISTINGUISHED THESIS AWARD by Research advisee (University)

- Hyoeun McDermott (2015-2016)

OTHER AWARDS by advisees (74 awards): 61 presentation awards and 13 other awards.

Year	Student Name	Award	Avenue
2026	Gyan Grewal	OSEG grand prize 1st alternative	OSEF
2025	Emma Braun	Oklahoma Cell Biology Symposium 2nd place for Oral presentation	Oklahoma Cell Biology Symposium
2025	Emma Braun	EIDF Outstanding oral Presentation award	MSU
2025	Gyan Grewal	Grand Prize, OSEF	Ozark Science Fair
2025	Tal'or Gold	recipients of the Basil and Joann Boritzki Endowment Scholarship	MSU
2025	Mileah Metcalf	Outstanding graduating senior	Biology
2024	Nhi Le	Outstanding Poster Award, EIDF	MSU
2023	Onyinye Okafor Nhi Le Emma Braun Prithvi Nagarajan	Outstanding Poster Award, EIDF Outstanding Poster Award, EIDF First Prize, CNAS Symposium MO Southern Regional Science Fair: 2nd prize winner in Cellular, Molecular, and microbiology	MSU MSU CNAS, MSU Missouri Southern
2022 2022 2022	Nhi Le Seth Harris Kimberly Nguyen	Outstanding senior award CNAS symposium (first prize award) MSSU Science Fair awards (Outstanding Achievement in Science- 2nd place in Microbiology Category	Biology CNAS, MSU Missouri Southern State University Science and Engineering Fair
2021 2021 2021	Daniel S Kim Min Zhang Nhi Le	**Honorable mention** **Honorable mention, at EIDF** **First Prize at CNAS Symposium**	Arkansas Biomedical INBRE MSU CNAS, MSU

2020	Glory Ehie	**Honorable Mention, CANS symposium**	MSU
2020	Victoria Davenport	**First Prize, CNAS symposium**	MSU
2020	Kafayat Yusuf,	**Outstanding Presentations at IDF**	MSU
2020	Husref Rizvanovic	**Outstanding Presentations at IDF**	MSU
2020	Vy Nguyen	**Outstanding Presentations at IDF**	MSU
2020	Sravya Rallabandi	**Outstanding Presentations at IDF**	MSU
2020	Ehsan Suez	**Outstanding Presentations at IDF**	MSU
2020	Cullen Horstmann	**ASBMB conference Travel award**	Am. Soc of Bioch and Mol. Bi
2019	Kafayat Yusuf	**First prize, MSU 3 M Thesis**	MSU
2019	Ehsan Suez	**Fourth place, CNAS 3M Thesis**	CNAS, MSU
2019	Kafayat Yusuf	**First prize, CNAS 3M Thesis**	CNAS, MSU
2019	Daniel S Kim	**Outstanding project in the biochemistry category in the 2019 ISEF, Arizona**	International avenue
2019	Husref Rizvanovic	**Outstanding Senior** Student Award Winner	BIO
2019	Hanna Williams	**First place** in CNAS symposium	MSU
2019	Husref Rizvanovic	**First place** in CNAS symposium	MSU
2019	Husref Rizvanovic	Smith-Glen-Callaway Medical Foundation Premedical Scholarships	MSU
2019	Husref Rizvanovic	Guy Callaway, Sr**. Outstanding Senior** Premedical Student Scholarship	MSU
2019	Daniel S Kim	**Grand prize at Ozark Sci &Eng Fair**	MSU
2018	Husref Rizvanovic	**Citizen Scholar**	MSU
2018	Jared Smothers	**First place** in CNAS 3M thesis competition	CNAS at MSU
2018	Cullen Horstmann	**First Place** in undergraduate oral presentation	American Society for microbiology (ASM), Kansas
2018	Mariel Delgado Cruz	**Second place** in graduate oral Presentation	ASM, Kansas
2017	Cullen Horstmann	**Honorable mention** in poster presentation	Arkansas IDeA Network of Biomedical Research Excellence (INBRE), Fayetteville
2017	John Short	**Third place** the MSU 3M Thesis competition	MSU
2017	Jared Smothers	**Second place** at CNAS undergraduate symposium	CNAS at MSU
2016	John Short	**First** Biology Undergraduate Poster Award	Arkansas INBRE, Fayetteville
2016	Mariel Delgado Cruz	**Outstanding Senior** Student Award Winner	Biology Department
2016	Mariel Delgado Cruz	**First place** in undergraduate student oral presentation	ASM, Springfield, MO
2016	Pelin Makaraci	**First place** in graduate student oral Presentation	ASM, Springfield, MO
2016	Pelin Makaraci	**Fourth Place** in 3MT presentation	CNAS at MSU
2016	Sara Woodman	**First Prize** in 3MT presentation	CNAS at MSU
2015	Justin Conover	**Outstanding Senior** Student Award Winner	Biology Department
2015	Sara Woodman	**Outstanding Senior** Student Award Winner	Biology Department
2015	Shiva Kumar Gadila	**Outstanding Poster** presentation award	IDF at MSU
2015	Sara Woodman	**First** prize in oral presentation	ASM Missouri Valley Meeting (Lincoln, Nebraska)
2014	Hyoeun Ahn	**First place** in poster presentation	CNAS at MSU
2014	Sara Woodman	**Second place** in poster presentation	CNAS at MSU
2014	Michelle Williams	**Poster** presentation award	IDF at MSU
2014	Hyoeun Ahn	**Oral presentation** award	IDF at MSU
2014	Hyoeun Ahn	**First place** in graduate oral presentation	Missouri Branch of ASM, Kansas,
2013	Joshua Lukehart	**Poster** presentation award	IDF at MSU

2013	Michelle Williams	**Board of Governor's** award for competitive academic achievement	MSU
2013	Katelyn Bartlett	**Board of Governor's** award for competitive academic achievement	MSU
2013	Katie Schmelzle	**Board of Governor's** award for competitive academic achievement	MSU
2013	Michelle Williams	**First place** in poster presentation	CNAS at MSU
2013	Katelyn Bartlett	**First place** in graduate oral presentation	Missouri Branch of ASM, Colombia
2013	Katie Schmelzle	**First place** in undergraduate oral presentation	MO Branch of ASM, Colombia, MO
2013	Michelle Williams	**Second** place in undergraduate oral presentation	MO Branch of ASM, Colombia, MO
2012	Brandon Tenay	**Second** place in oral presentation	MO Branch of ASM, St. Joseph, MO
2012	Alexis Brummett	**First** place in poster presentation	CNAS at MSU
2011	Erin Murphy	**First** place in oral presentation	MO Branch of ASM, St. Louis
2011	Jacob Hayden	**Second** place in oral presentation	MO Branch of ASM, St. Louis
2011	Joshua Lukehart	**First** place in poster presentation	CNAS at MSU
2010	Jacob Boxberger	**Second** winner in biology presentation	CNAS at MSU
2010	Chitra Kamble	**Second** winner in oral presentation	Missouri Branch of ASM
2010	Erin Murphy	**First** winner in oral presentation	Missouri Branch of ASM
2009	Sandhya Jain	**Second** winner in graduate oral presentation	Missouri Branch of ASM, St. Joseph, MO
2009	Erin Murphy	**Second** winner in undergraduate oral presentation	Missouri Branch of ASM, St. Joseph, MO

GRADUATE STUDENTS Mentored by Dr. Kim

GRADUATE Advisees mentored by Dr. Kim (Thesis or non-thesis Committee Chair): 51 students (including **Suzanne Agsunod and Israt Jahan)**

Name	Year	Project	Current position
Srikant Nannapaneni	06-08	Characterization of the role of Vps1p in endocytosis in *Saccharomyces Cerevisiae*	Oncologist at CoxHealth, Springfield
Sandhya Jain	08-09	Roles of Slm genes in eisosome organization and endocytosis in *Saccharomyces cerevisiae*	Project Manager at Sanmay Technologies Inc.
Daobing Wang	08-09	Vps1 on the dynamics of endocytic components and endocytic scission	Research Associate at City of Hope National Med Ctr.
Christopher Burg	09-10	The functional synergy between yeast dynamin and key membrane recycling factors	Dentist
Chitra Kamble	09-10	Requirements of Slm proteins in eisosome organization, endosome trafficking, and membrane recycling	Analyst. Nashville, Tennessee.
Erin Murphy	09-11	Pil1, an eisosome organizer, plays an important role in the recruitment of synaptojanins and amphiphysins to facilitate receptor-mediated endocytosis	Scientist II at AbbVie, Mount Prospect, Illinois
Jacob Hayden	10-12	Vps1's implication on late endosome-to-vacuole traffic	Physician, resident, MU.
Chad Highfill	08-11	Vps1's implication in early endosomal trafficking to the Golgi in Saccharomyces cerevisiae	PhD. Scientist 2 (Exicure, Chicago) and Board Advisor Biotech (Al Dyn)

Brandon Tenay	10-11	Inactivation of tor proteins affects the dynamics of endocytic proteins in early stage of endocytosis	Group leader, microbiology at Catalent Pharma Solution, Kansas
Joshua Lukehart	2011	Vps1, a novel recycling factor for the traffic of early endosome to late Golgi	Business Development Manager II, Labcorp Drug Development
Katelyn Bartlett	12-14	TORC2 and eisosomes are spatially interdependent, requiring optimal level of PI (4,5)P2 for their integrity	Project Manager II, Viracor Eurofins BioPharma
Hyoeun McDermott	13-14	Novel physical interactions of Vps1 with major intracellular traffic regulators	Registered nurse at Mercy Hospital
Michelle Williams	12-13	Yeast dynamin functions with clathrin at the Golgi	phD. Postdoctoral Researcher at McMaster University, Ontario. ➔ lead Microbiologist, Boulevard Brewing Company.
Christopher Trousdale	13-15	Functional connection between yeast dynamin and retromer at the Endosome	Research Technician II, Washington University in St. Louis.
Shiva Kumar Goud Gadila	13-15	Dynamin Association with clathrin and its physiological roles at the Golgi and targeting mechanism to the Golgi	Tulane National Primate Research Center
Suzanne Agsunod	14-15	Mechanism of host and viral IL-10 suppressing anti-viral cytokines IFN-α and IFN-β. A student of Dr. Brian Weaver. Advised by Dr. Kim for her thesis.	Lab Assistant at Mercy
Bryan Banh	14-16	Yeast dynamin functions with ESCRT-II at the endosome and potential roles with novel binding partners	PhD candidate at University of Illinois, Chicago. Competitive Intelligence Analyst, Proactive Worldwide.
Uma Saimani	15-16	Yeast dynamin associated with the GARP tethering complex for endosome-to-Golgi traffic	Research associate position at Celgene Cellular Therapeutics ➔ Senior manager -cell therapy technical writing and document management, Bristol Myers Squibb.
Pelin Makaraci	15-18	Yeast dynamin and Ypt6 converge on the GARP for endosome-to-Golgi Trafficking	Quality control tech, ThermoFisher➔ Senior Scientist, Plastikon Healthcare
Sara Woodman	15-17	Yeast membrane lipid imbalance leads to trafficking defects toward the Golgi.	Sr. Research Senior Scientist (JVIC)➔ Senior auditor, office of the MSU Auditor
Mariel Delgado Cruz	16-18	Understanding Vps1's role as a Golgi membrane remodeling Protein	Lead Lab scientist, Springfield Green County Health
Sravya Kottapalli	17-19	Yeast myosin II mediates for Snc1 trafficking towards the TGN	Computer system validation engineer III, Fugifilm
John Short	17-present	Carbon nanotubes and its effect on cells	Master Program at MSU and JVIC Scientist
Jared Smothers	17-2019	In vitro reconstitution of membrane fusion	PhD. Uni. Of Texas Southwestern Medical

			center. Post doc, UC Berleley. Jim Hurley lab
Ryan Windish	18-2019	Ubiquitination of Vps1 and its effect on membrane trafficking	Resolution manage, Charles Schwab
Deborah Ehie	19-2020	Chitosan-derivatives on Hela cells	Prep for medical school
Vy Nguyen	18-2020	Myosin type V on vesicular trafficking	TBA, personal business
Ehsan Suez	18-2020	SNARE mutation on membrane fusion	PhD Program at Univ. of Georgia (Institute of Bioinformatics)
Sravya Rallabandi	18-2020	Mutations of myo2 on vesicular trafficking	Attending Dental school
Anh May Ly	18-2019	In vivo membrane fusion assay	Pharmacy scientist
Kafayat Yusuf	19-2020	Effects of Pt (DECO) and Pd (DECO) on cancer cells	PhD program, University of Kansas Medical Center
Timophey Shishko	19-2020	Professional Science Master's program	Mercy
Husref Rizvanovic	19-2020	Alternative chemotherapeutic drugs against human thyroid cancer	PA school (Stephens College). Urgent care physician assistant (MU)
Cullen Horstmann	19-2021	Manufactured Nanoparticle impact on yeast	Associate Scientist II, Eurofins Bio-Pharma
Min Zhang	20-2022	Quantum dots and their traffic dynamics in cells	PhD in Univ of Kentucky
Leigh Cox	20-2021	Professional Science Master's program	KU Medical School
Victoria Davenport	20-21	InP/ZnS impact on mammalian cells	Eurofins Viracor scientist, Case Western Reserve Uni. School of Medicine,MS of Anesthesia (2023-2025)
Alyse Peters	21-23	ZnO-mediated cell cytotoxicity in ML-1 cells	BIO-MS, accelerated MS. Children's Mercy Research Institute, Kansas city, MO
Kathryn Monahan	21-22	Professional Science Master's program	MNAS-BIO accelerated
Dominic Meyer	21-23	Professional Science Master's program	MNAS-PSM, UMKC dental
Israt Jahan	21-22	A former graduate student of Dr. Udan-now thesis advisee of Dr. Kim	**PhD. Augusta University**
Nhi Le	22-24	Red CdSe/ZnS interaction with Yeast	BIO-MS, Johns Hopkins PhD
Seth Harris	22-24	Molecular mechanisms of nanoparticle-mediated apoptosis	MNAS-BIO, KU, Molecular Biosciences
Onyinye Okafor	22-24	Quantum dots impact on eisosome and endocytosis	BIO-MS, Res Asso II (U of Texas, Galveston, Texas)
Siddak Dhaliwal	23-24	Yeast dynamin targeting to the endosome	MNAS-BIO, MU medical
Rakshya Bhatta	23-24	Yeast two hybrid protein interaction	BIO-MS, UIUC tech, FSU
Ta'lor Sandul	24-26	PFAS in yeast	BIO-MS, HS teacher (Joplin)
Emma Braun	24-26	Carbon Quantum dots-drug delivery vehicle	MNAS-BIO, Eurofin
Abhishu Chand	24-26	QD interaction with alpha actinin	BIO-MS accelerated, Egle Analytical
Phrina Tran	24-26	PFAS in mammalian cells	BIO-MS accelerated, Microbiologist
Karsen Cook	26-	Nanopastics in Hepatic cells	BIO-MS

Summary of Graduate Committees: a total of 152 Master's committees (121 thesis committees, 16 non-thesis committees, and 14 current graduate committees in progress)

All Graduate Thesis Committees completed (121) since 2006. *Chaired 41 theses (in Bold)*

- 2006: Vinit Patil, Carrie Vause
- 2007: Lauren Langford, Stacy freeman
- 2008: Srikant Thalakoti, Srikant Damodaram, Filip Garret, Ryan Cady, Debra Deloach, Saraschand Vadlamudi, **Srikant Nannapaneni**
- 2009: Ashok Valluri, Amanda Herbster, Clark Mallory (Chemistry), Neal Van Asch, **Sandhya Jain**
- 2010: Brian Peterson, Melissa Reynolds, **Daobing Wang**, **Chris Burg**
- 2011: **Chad Highfill**, **Chitra Kamble**, **Erin Murphy**, Sarah Nicholas, Allison Overmyer, Jacob Norton Rhy, Joseph Kerwin, Zsofia Toth, Kael Smith, Kelli Hastings
- 2012: **Jacob Hayden**, Joseph Glenn, Darin Dieckhoff, Kelly Crowe, Joshua Hayden, Jordan Hawkins
- 2013: Tyler Smith, **Joshua Lukehart**, **Brandon Tenay**, Daniel Pap, Alyxandria Shibley (Chemistry), Richard Well, Zach Durham
- 2014: **Katelyn Bartlett**, **Michelle Williams**, Mohammed Alshahami, Chunling Cao (Chemistry), **Hyoeun McDermott**, Bernice Agana (Chemistry), Kaleb Pearson
- 2015 Nick Moore, David Miley, Xiaozheng Dou (Chemistry), Shannon Stiles, Brittany Twibell, Jennifer Denson, **Suzanne Agsunod**, **Chris Trousdale**, **Kumar Gadila**
- 2016: **Bryan Banh**, Lindsey Koop, Rachel Padget, Michelle Butts (Chemistry), Christopher Reynolds (Chemistry), **Uma Saimani**, Neva Agarwala (Physics)
- 2017: **Sara Woodman**, Taiaba Afrin, Neelima Chelliboina, Marshal Blank, Nicholas Mundt (chemistry), **Pelin Makaraci**
- 2018: Angeline Rodriguez, Hazzar Abysalamah, Jacob Blankenship, **Mariel Delgado Cruz**
- 2019: Jessica Cox, **Jared Smothers**, Meagan Rippee-Brooks, Jordan Jensen (BMS), Dani Joseph (MNAS), Natalie Smith, Abbi Mabary Brown,
- 2020: Blake Justis, **Vy Nguyen** (MNAS), **Deborah Ehie** (MNAS), **Kafayat Yusuf**, **Husref Rizvanovic**, Parris Mayhood, **Sravya Rallabandi**, Adjoa Adams (Chemistry), **Ehsan Suez,**
- 2021: **Victoria Davenport**, **Cullen Horstmann,**
- 2022: **Min Zhang, Israt Jahan,** Nayeon Son, Sophia Antonopoulos, Alex McMullen (CHM), Giselle Campos (Chemistry), Riley Nadler, **Alyse Peters**
- 2023: Catherine Rippe, Inyeong Lee, Autumn Pilarski (Chemistry), Rejeena Jha (PAMs)
- 2024: **Nhi Le, Onyinye Okafor, Seth Harris,** Iqra Skakoor (Chemistry), **Rakshya Bhatta**
- 2025: Acacia Jurkowski (chem), Jami Bull, Nicole Nalley, Mikayla Scharnhorst, Shayd Gothard (Chem), Jonathan Fisk (Bio)
- 2026: **Phrina Tran, Abhishu Chand, Tal'or Sandul, Emma Braun,** Tony Astuhuaman Davila (PAM)

Non-thesis or Degree Committee completed: 16 times. ***Chaired 8 times*** ***(in bold)-Vy Nguyen*** *completed both Thesis and Internship report*

- 2018: Benjamin Parnell (PSM), Greg Illy (PSM), **Sravya Kottapalli** (MNAS-non-thesis),
- 2019: Bradley Culbertson (PSM), **Anh Mya Ly** (PSM), **Windish Ryan** (PSM), John Bledsoe (PSM),
- 2020: **Vy Nguyen** (PSM), **Timophey Shishko** (PSM), Jordan Fleetwood (PSM), Karina Sewell (PSM),
- 2021: **Leigh Cox** (PSM)

- 2022: **Kathryn Monahan** (PSM)
- 2023: Sijuade Otunomo (PSM), **Dominic Meyer** (PSM)
- 2024: Zachery Lawrence (PSM)

Current Thesis and Non-thesis Committees: 14 times. *Current Chair 6 times* *(in bold)*

- **John Short**, Mikayla Scharnhorst ,Brian Lanigan (chemistry), Olusegun Idowu (chemistry), Cody Turner (chemistry), Matthew So (BIO), Clarissa Krimmel (Chm), Ashok Dubey (BIO), **Siddak Dhaliwal** (MNAS), **Karsen Cook (BIO)**

UNDERGRADUATE RESEARCH MENTORING by Dr. Kim

I mentored the following independent undergraduate research students: **101 students**.

Name	Year	project	Current position
Adam Maysent	07-08	Vps1 on endocytosis	Production supervisor, TC Transcontinental Packaging
Pittsley Delilah	2008	Lipophilic dye internalization in Vps1 mutants	Senior quality engineer (Zimmer)
Ryan McDowell	2008	Endocytic vesicle trafficking	CoxHealth, Physician, MO
Anne Reustle	2008	Endocytic vesicle trafficking	Faculty for Neosho County Community College in Chanute, KS
Erin Murphy	08-09	Pil1 role in eisosome organization	Scientist at AbbVie, Mount Prospect, Illinois
Blake Schroeder	08-09	Vps1 GTPase roles in yeast endocytosis	Pipeline Operator II, Southern Star Central Gas Pipeline
Wesley Brundridge	2008	Characterization the behavior of endocytic markers in Vps1 mutant cells	Physician at San Antonio military medical center
Shawn Moulder	08-09	Statistical analysis of patch internalization behavior	Physician, Trenton, MO
Chad highfill	08-10	Interaction between Vps1 and its binding partners	RNA biologist
Tiffany Whitney	2009	Interaction between Vps1 and its binding partners	TBA
Lisa Track	2009	Tetrad dissection of zygote formed via mating between Vps1- and Ypt6- lacking cells	Physician, Cox Family Medical Care Center
Ryan Regelsperger	2009	Vps1 in endosome-to-Golgi traffic	Medical Lab Scientist at CoxHealth
Purav Trivedi	2009	Functional relationship between Yeast dynamin and guanidine nucleotide exchange factors	Biotechnology Professional. Great New York city area
Mark Pence	2009	Study of localization of Vps1	DO. Professor, Kansas city
Jacob Boxberger	09-10	Eisosome organization	Doctor of Osteopathy D. O. Saint Luke's
Geoffrey Zahn	09-10	Pil1 functions in yeast endocytosis	phD Assistant professor at Utah Valley University
Jeff Sletto	09-10	Clathrin interaction with dynamin	Dentist (DDS)
Robert Colvin	2010	Connection between eisosome and endocytosis	Physician, Beaumont Health (Diagnostic Radiology)
Fred Loor	10-11	Tor1 and its function in endocytosis	TBA
Joshua Fakilahyel (F. Samuel Mshelbwala)	10-11	Use Tor1 temperature sensitive mutants for yeast endocytosis	MD, Cardiology fellow (Henry Ford Hospital)
Douglas Gilliam	10-11	Actin cable formation in endocytic mutant cells	Science teacher

Elizabeth Kapustka	2010	Dynamic membrane behavior	Director of Operation at Juxly, LLC.
Brandon Tenay	10-11	Investigation of Tor proteins affecting dynamics of endocytosis	Catalent Pharma Solutions, group leater
Sukje Lee	10-11	Eisosome protein Pil1 functions for membrane phospholipid synthesizing proteins	Physical Therapist, KS
Joshua Lukehart	2011	Characterization of Vps1 as a novel recycling factor	Business Devel Manager II (Labcorp)
Andrew Watkin	2011	Localization study of Vps1	Dentist, Kansas City
Sarah Dobard	11-12	Vps1's role in degradative traffic	Graduate Research Assistant at A.T. Still University
Evin Kimberlin	11-12	Pil1 and endocytosis	Medical Technologist at Cox Health, Springfield
Hyoeun McDermott	11-13	Physical interaction of Vps1 with novel intracellular traffic pathways	Registered nurse at Mercy Hospital
Alexis Brummett	2012	Vps1 localizes at cellular recycling and degradation centers	TBA
Michelle Williams	12-13	Vps1 interaction with clathrin and its implication on membrane trafficking	Postdoc at McMaster Uni.
Ann Granich	12-13	Isolation of cells expressing Vps1-RFP and Clathrin-GFP	Pathologist asst. CA
Juliette Dennis	12-13	Spatial dynamics of GGA1 and Vps1	DDS, Dentist, Kansas
Katie Schmelzle	12-13	he Functional Cooperation Between Vps1 and the Retromer for Endosome-to-Golgi Recycling	TBA
Yulia karnyushina	2013	Tetrad dissection of yeast diploid cells	Actor
Anna Krovyakova	2013	Characterization recycling factors	Hospital & Health Care Professional
Courtney Hofstetter	2013	TORC2 and eisosome	Pharmacist at Walgreens, Virginia
Andrew Sandoval	2013	TORC2 components and their function in endocytosis	Dentist (DDS)
Brett Alcox	2014	Membrane phospholipid composition change in TORC2 mutants	Team leader, Software Engineer at Garmin International, Kansas
Sara Woodman	14-15	Membrane lipid imbalance and its effect on membrane trafficking	Sr. Research Scientist (JVIC)
Emily Humphrey	2014	Yeast two hybrid collaboration	Pharmacist, Mercy
John Short	14-16	Carbon nanotubes and its effect on cells	Master Program, Missouri State University/Jordan Valley Innovation Center
Justin Conover	14-16	Functional relationship of Retromer to Vps1	PhD program, Iowa State University
Ashley Smock	2015	Cloning and purification of Ypt6	Kansas Bioscience program (Master)
Mariel Delgado Cruz	2016	Dynamin on dynamics of Golgi membrane	MSU master and Prep for medical school
Brianna Steiert	2015	Dynamin functions with ESCRT proteins	Uni. Of Iowa, PhD program
Chelsea Campbell	16-17	Silver nanoparticle impact on yeast	Mercy, Clinical Research Coordinator
Jared Smothers	16-17	Vps1 and tethering factors in membrane trafficking	UT Southwestern Medical School, PhD.
Brett Somogye	2016	Study factors influencing membrane recycling	PhD. University of Missouri
Julie Curless	16-17	Silver nanoparticle impact on yeast	Biology, Missouri State

Cullen Horstmann	17-19	Nanoparticle-mediate gene expression profile changes	Eurofins BioPhama
Elizabeth Troutwine	2017	Membrane fusion	MSU Clinical Psychology-MS, Provisional Licensed Professional Counselor
Gabriella Schafer	17-18	In vitro reconstitution assay of membrane fusion	Medical school at Kansas City University of Medicine and Biosciences (DO)
Ryan Windish	17-18	Ubiquitination of Vps1 and its effect on membrane trafficking	Searching for MD program
Paul Ballhorn	17-18	Myosin 2 for vesicular trafficking	Saving Sight (Springfield)
Onika Olson	18-20	In vitro reconstitution of membrane fusion	TBA
Olivia Horton	2018	Thyroid cancer project	Mercy-patient care associate
Husref Rizvanovic	18-19	Thyroid cancer project	Stephens Colle (PA school)
Deborah Ehie	2018	Chitosan-derivatives on Hela cells	MNAS program at MSU, now Gap year for Medical application
Hanna Williams	18-19	Thyroid cancer project	MSU PA program, Physician Assitatn, Total Access Urgent Care
Qiwen Dong	18	Chitosan-derivatives on Hela cells	Ph.D. program
Basant Hens	19-20	Cadmium effect on Human cancer cells	Ph.D. (Indiana University)
Julia Villarreal	19	Vps10-GFP patch motility in myosin mutant	JMARK-Client Success Specialist
Victoria Davenport	19-20	Palladium nanoparticle impact	Clinal lab scientist, Viracor
Glory Ehie	20	Myosin in vesicular trafficking	MSU Junior
Kirk Cameron	20-21	Myosin in vesicular trafficking	MSU-transferred to UMSL
Alyse Peter	20-21	Quantum dots and RTPCR	MSU Senior/BIO-MS
Kathryn Monahan	21	ZnO-mediated cell cytotoxicity	MSU MNAS program
Madeline Merrill	21	Chitosan derivatives as gene delivery vehicle	MSU sophomore-BMS
Nhi Le	21-22	CdSe/ZnS-COOH traffic in the budding yeast	MSU MS degree
Daniel S Kim	2021 Su	Subcellular localization of CdSeZnS in HeLa	Emory University
Nakaja Weaver	21-22	Mechanism of CuO and ZnO in toxicity	MSU sophomore
Seth Harris	21-22	Platinum-based chemotherapeutic agents	MSU senior
Jonathan Routh	21-22	Cd-based quantum dot traffic in the budding yeast	Training Support Specialist at Biolife Plasma Services
Mitchell Kim	22 Su	Apoptosis protein level changes by engineered nanomaterials	MSU Junior
Ezoza Hikmatillaeva	22	Research rotation in the lab	MSU Undergraduate
Phrina Tran	22-24	Research rotation in the lab	MSU Undergraduate
Mikayla Scharnhorst	22	Research rotation in the lab	MSU Undergraduate, JVIC research assistant
Emma Braun	23-24	Chitosan derivatives for gene therapy	MSU Undergraduate
Siddak Dhaliwal	23	Dynamin ubiquitination effects	MSU Undergraduate
Carly Crawford	23	Dynamin Ubiquitination effects	MSU Undergraduate
Abhishu Chand	23-24	Cellular and molecular mechanism of nanotoxicity	MSU undergraduate
Mileah Metcalf	23-25	Nano-bio interaction	MSU undergraduate
Hyrum Harlow	23-24	Chitosan as drug delivery vehicle	MSU Physics
Lena Singleton	23-27	HepG2 cells and hepatoxicity	MSU Undergrad

Levi Field	23-24	Nanoparticles and epigenomics (Writing project)	MSU undergrad
Curtis Witt	24-25	THLE2 and Hepa1-6 with 6PPD and 6PPDQ	MSU Undergrad
Karsen Cook	24-25	Alpha factor endocytosis and trafficking	MSU Undergrad
Sherri Lee	25	Ozonated 6PPD impact in health	MSU Undergrad
Elijah Billue	25-	Quantum dot binding to alpha actinin	MSU undergrad (Chem)
Faith Sheridan	25-26	Chitosan nanoparticles for cancer drug delivery (with Dr. Mayanovic).	MSU-PAM undergraduate
Lana Jane Janson	25-26	Chitosan based drug delivery (with Dr. Mayanovic)	MSU-PAM undergrad
Madi Frerichs	25-26	Prodrug and drug delivery to cancer cells and muscle cells	MSU-BIO undergrad
Beth Reeves	26		
Ryan Evers	26-	Molecular modeling of 6PPD and its derivatives	MSU undergraduate
Luke Battagler	26-	Molecular biding mechanism of 6PPD and NR1H3	MSU undergraduate
Kade Meineke	26-	Molecular Binding mechanism of tire-anti-degradants with Abl1 kinase	MSU undergraduate
Trisha Tewari	26 Su	Molecular binding simulation via GROMACS	U of Wisconsin
Naomi Meng	26 Su	Molecular modeling with Chimera and GROMACS	Brown University
Richard Le	26 Su	Molecular Modeling with Chimera and CROMACS	Dartmouth University
Michaela Frye	26 Su	Molecular Modeling with Chimera and GROMACS	MSU undergraduate (Agriculture)

HIGH SCHOOL STUDENT RESEARCH: 12 students

- Rachel Choi (2010)
- Peter Liu (2011)
- Chase (2013)
- Daniel S Kim (2017-2020)
- Ivionna Spears (2019)
- Govind Nair (2021-2021)
- Nguyen Kim (2021-2022)
- Prithvi Nagarajan (2022-2024)
- Minal Khan (2023)
- Anna Barnhart (2023)
- Ethan Johnson (2024-2025)
- Gyan Grewal (2024-present)

RESEARCH FUNDING by advisee students: <u>a total of $102,384</u>

A. Thesis (or Non-thesis) Research Grant: 37 **($39,800)**
Srikant Nannapaneni (2007), Sandhya Jain (2008), Daobing Wang (2008). Christopher Berg (2009), Chitra Kamble (2009), Erin Murphy (2009), Chad Highfill (2010), Jacob Hayden (2010), Elizabeth Kapustka (2011), Joshua Lukehart (2011), Brandon Tenay (2011), Michelle Williams (2013), Katelyn Bartlett (2013), Shiva Kumar Gadila (2014), Hyoeun Ahn (2014), Christopher Trousdale (2014), Bryan Banh (2014), Pelin Makaraci (2015), Uma Saimani (2015), Sara Woodman (2016), Mariel Delgado Cruz (2016), John Short (2017), Jared Smothers (2017), Vy Nguyen (2018), Sravya Kottapalli (2018), Ehsan Suez (2018), Sravya Rallabandi (2019), Deborah Ehie (2019),

Kafayat Yusuf (2019), Husref Rizvanovic (2019), Cullen Horstmann (2019), Victoria Davenport (2021), Min Zhang (2021), Nhi Le (2022), Alyse Peters (2022), Onyinye Okafor (2022), Seth Harris (2022), Emma Braun (2025), Abhishu Chand (2025), Phrina Tran (2025), Tal'or Gold (2025)

B. Topping Summer Research/teaching Fellowship: 20 **($43,000)**
Sandhya Jain (2008), Delilah Pittsley (2008), Daobing Wang (2009), Chitra Kamble (2009), Erin Murphy (2009), Jacob Hayden (2011), Joshua Lukehart (2011), Michelle Williams (2013), Katelyn Bartlett (2013), Hyoeun McDermott (2014), Uma Saimani (2015), Mariel Delgado Cruz (2017), Jared Smothers (2017), Ehsan Suez (2018), Jared Smothers (2018), Husref Rizvanovic (2019), Sravya Rallabandi (2019), Nhi Le (2022), Alyse Peters (2022), Nhi Le (2023)

C. Undergraduate Summer Research Fellowship: 7 **($13,320)**
Jacob Boxberger (2010), Sara Woodman (2015), Chelsea Campbell (2017), Cullen Horstmann (2018 and 2019), Julia Villarreal (2019), Nakaja Weaver (2022), Jonathan Routh (2022)

D. Graduate Student Travel grant awards **($6,264)**
Srikant Nannapanneni (2007), Erin Murphy (2010), Joshua Lukehart (2012). Brandon Tenay (2012), Jacob Hayden (2012), Katelyn Bartlett (2013), Hyoeun Ahn (2014), Christopher Trousdale (2014), Kumar Gadila (2015), Sara Woodman (2015), Sara Woodman (2016), Vy Nguyen (2018), Mariel Delgado Cruz (2018), Jared Smothers (2018), John Short (2018), Mya Ly (2019), Ehsan Suez (2019), Deborah Ehie (2019), Kafayat Yusuf (2019), Husref Rizvanovic (2020), Victoria Davenport (2021), Min Zhang (2021),

Underrepresented Student or Pell-grant Student Advising:

- 2016-2018: Mariel Delgado Cruz (URM)
- 2018-2020: Deborah Ehie (Pell Grant + MoLSAMP)
- 2019: Julia Villarreal (MoLSAMP)
- 2020: Glory Ehie (MoLSAMP)
- 2020: Hayley Revelle (MoLSAMP First Year Scholar advising)
- 2020-2021: Kirk Cameron (MoLSAMP)
- 2020-2021: Xaviera Ljunggren (MoLSAMP First Year Scholar advising)
- 2020-2021: Michelle Thomas (MoLSAMP First Year Scholar advising)
- 2021: Thelma DeLeon: (MoLSAMP First Year Scholar advising)
- 2021: Christopher Wells (MoLSAMP First Year Scholar advising)
- 2021-2022: Nakaja Weaver (MoLSAMP)
- 2022-2022: Mikayla Scharnhorst (Pell grant)
- 2022: Felicity Watkins (MoLSAMP First Year Scholar advising)
- 2022-present: Onyinye Okafor (underrepresented minority)
- 2021-present: Nhi Le (Pell Grant and first-gen student)
- 2023-present: Siddak Dhaliwal (Pell Grant and first gen)
- 2023-present: Rakshya Bhatta (first-gen)
- 2024-present: Levi field (first-gen)

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

75. Abhishu Chand*, Elijah Billue**, Tony E. Astuhuaman Davila*, Ridwan Sakidja, and **Kyoungtae Kim. 2026.** Quantum dots interaction with alpha-actinin via experimental observations and computational predictions. Int. J. Mol. Sci. **2026**, 27, 6070
74. Emma Braun*, Mileah Metcalf**, and **Kyoungtae Kim. 2026**. 6PPD and 6PPD-Q induce Mitochondrial dysfunction in Saccharomyces cerevisiae. Int. J. Mol. Sci. **2026**, 27, 7739
73. Emma Braun*, Mileah Metcalf**, and **Kyoungtae Kim**. **2026**. A piece of the ecotoxicology puzzle: how can current and future research inform PPD regulations. Evidence-Based Toxicology. Evidence-Based Toxicology 4 (1), 2650933
72. Phuong D Tran* and **Kyoungtae Kim**. **2026.** Perfluorooctane Sulfonate (PFOS) disrupts mitochondrial activity and cell adhesion in liver cells. Journal of Xenobiotics. DOI: 10.3390/jox16020065.
71. Phuong D Tran* and **Kyoungtae Kim**. **2025**. From Dawn to Now: The Evolution of PFAS Re-search Trends. *Environment. https://doi.org/10.3390/environments12120476*. Environments **2025**, 12, 476
70. Abhishu Chand* and **Kyoungtae Kim. 2025.** The Epigenomic Impact of Quantum Dots: Emerging Biosensors and Potential Disruptors. *Epigenomes. https://doi.org/10.3390/epigenomes9040050*
69. Mileah Metcalf**, Abhishu Chand*, and **Kyoungtae Kim**. **2025**. Quantum Dots Affect Actin Cytoskeleton Reorganization, Resulting in Impaired HeLa and THLE-2 Cell Motility. *Micro.* https://doi.org/10.3390/micro5020029
68. Abhishu Chand* and **Kyoungtae Kim**. **2025**. Current Advances in the Cancer Therapeutic Applications of Metal–Organic Frameworks Associated with Quantum Dots. *Journal of Nanotheranostics.* https://doi.org/10.3390/jnt6020013
67. Siddak Dhaliwal*, John C W Short*, and **Kyoungtae Kim. 2024.** Domain truncation and point mutations unveil potential Vps1 recruitment mechanisms. Acta Scientific Microbiology. DOI: 10.31080/ASMI.2024.07.1423
66. Seth Harris* and **Kyoungtae Kim**. **2024.** A Comparison of Common Quantum Dot Alternatives to Cadmium-based Quantum Dots on the Basis of Liver Cytotoxicity. *Nanomaterials* **2024**, *14*(13), 1086; **https://doi.org/10.3390/nano14131086**
65. Onyinye Okafor* and **Kyoungtae Kim. 2024.** Cytotoxicity of Quantum Dots in Receptor-Mediated Endocytic and Pinocytic Pathways in Yeast. *Int. J. Mol. Sci.* **2024**, *25*(9), 4714; **https://doi.org/10.3390/ijms25094714**
64. Abhishu Chand**, Nhi Le*, and **Kyoungtae Kim**. **2024**. CdSe/ZnS Quantum dots' impact on In Vitro actin dynamics. International Journal of Molecular Sciences 25 (8), 4179.
63. Prithvi Nagarajan (H), Seth Harris*, and **Kyoungtae Kim**. **2024**. The Cytotoxic Effects of Prazosin, Chlorpromazine, and Haloperidol on Hepatocellular Carcinoma and Immortalized Non-tumor Liver Cells. March 2024. Medical Oncology. DOI: 10.1007/s12032-024-02323-7
62. Nhi Le*, Abhishu Chand**, Onyinye Okafor*, and **Kyoungtae Kim**. **2023**. The Impact of Cadmium Selenide Zinc Sulfide Quantum Dots on the Proteomic Profile of Saccharomyces Cerevisiae. *Int. J. Mol. Sci.* **2023**, *24*(22), 16332
61. Nhi Le*, Abhishu Chand**, Emma Braun**, Chloe Keyes**, Qihua Wu, **Kyoungtae Kim**. **2023**. Interactions between Quantum Dots and G-actin. *nt. J. Mol. Sci.* **2023**, *24*(19), 14760
60. Seth Harris* and **Kyoungtae Kim**. **2023**. Apoptotic pathway protein expression variance in metal oxide and quantum dot treated HeLa cells. **Micropublication. DOI:**10.17912/micropub.biology.000801
59. Nhi Le* and **Kyoungtae Kim**. **2023.** Current Advances in the biomedical applications of

quantum dots: Promises and Challenges. Int. J. Mol. Sci. 2023, 24, 12682.
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 $(DECO)_2$ 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 **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 Daniel Kim, **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. Advances in Diagnosis and treatment of thyroid cancer. Archive of Cancer and Oncology, 1 (1): 1-5
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 $PI(4,5)P_2$ 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: Implicaiton 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, Andrey 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.

INVITED Talks: (*Graduate Student; **Undergraduate Student)

Kyoungtae Kim. 2025. Fluorescent quantum dot interaction with actin and the impact on actin dynamics. At the 2025 Federation of Asian and Oceanian Biochemists and Molecular Biologists. May 23. Pusan, Soth Korea.

Kyoungtae Kim. 2024. Actin interaction with quantum dots. October, Pittsburg State University, Biology Department.

Kyoungtae Kim. 2024. Multiomics and biochemical approaches to quantitate quantum dot interaction with the cellular constituents. March 27-29, University of East Carolina.

Kyoungtae Kim. 2024. Interaction between actin and quantum dots. The 8th Edition of world Nanotechnology Conference, March 18-20, Singapore.

Kyoungtae Kim. 2023. Quantum dots' impacts on actin dynamics and membrane trafficking. Symposium on World Cell and Molecular Biology (CMB2023), Singapore.

Kyoungtae Kim 2023. QDs' Trafficking and Its Impact on Yeast Polarization and Actin Filament. The 2023 Cell and Experimental Biology. Texas.

Kyoungtae Kim. 2022. Cytotoxic effects of Metal oxides and quantum dots in Mammalian cells and the budding yeast Saccharomyces cerevisiae. ERDC/JVIC Meeting. Vicksburg, MS (August 10).

Kyoungtae Kim, Nhi Le, Jonathan Routh. 2022. Cadmium Selenide Zinc Sulfide Quantum Dots on Saccharomyces cerevisiae: Their traffic routes and impact on endocytosis and exocytosis as well as on actin dynamics. 4th World Nanotechnology Conference (April 25-27). Keynote speaker.

Nhi Le and Kyoungtae Kim. 2021. An Investigation of the Intracellular Trafficking of Cadmium Selenide Zinc Sulfide Quantum Dots in Yeast Cells. The 2021 Arkansas Idea Network of Biomedical Research Excellence.

Kyoungtae Kim. 2020. Study of Intracellular Traffics and assessment of anticancer therapeutics and engineered nanoparticles on cells. 2020. EFIGIE Talks (Virtual presentation, Brazil)

Kyoungtae Kim. 2020. Inner cell traffic research and human disorders. English Language Institute. Missouri State University

Cullen Horstmann and Kyoungtae Kim. 2019. What doesn't kill you makes you...develop acute health problems down the road. The German-American Science Slam. St. Louis, Missouri.

Kyoungtae Kim. 2019. Study of intracellular traffics and assessment of anticancer therapeutics and engineered nanoparticles on cells. The CNAS undergraduate symposium. May 3, 2019

Kyoungtae Kim. 2018. Yeast dynamin plays a key role in the endosome-to-Golgi Traffic. Keynote Speaker at World Yeast Congress. Montreal, Canada. May 14-15.

Kyoungtae Kim, 2018. Functional upregulation of ribosome biogenesis in yeast treated with silver or CdSe/ZnS nanoparticles. Keynote speaker at World Yeast Congress. Montreal, Canada. May 14-15.

Kyoungtae Kim. 2017. November 15. Study of Intracellular Traffic. Guest Speaker in the course "Biopsychological Aspects of Dementia"

Kyoungtae Kim. 2017. August 29. Membrane trafficking. Talk at the MSU-ACS affiliates.
Kyoungtae Kim. 2015. June 28. Carbon nanomaterials negatively affect cell viability and gene Expression. Talk at the Sixteenth International Conference on the Science and Application of Nanotubes, Nagoya, Japan.
Kyoungtae Kim. 2014. Apr 7. Dynamin-like protein Vps1 in vesicular traffic. Wichita State University, Kansas.
Katelyn Bartlett*, Kyoungtae Kim, and Katie Schmelzle*. 2013. Carbon nano tubes toxicity in yeast, Springfield, MSU.
Kyoungtae Kim. 2012. Oct 31. Dynamin-like protein Vps1 in intracellular traffics. Williams Baptist College, Walnut Ridge, AK.
Kyoungtae Kim. 2012. Oct 1. Implication of Dynamin-like Protein Vps1 in Endocytic and Recycling traffics. Department of Biology. Missouri Science and Technology, Rolla, MO
Kyoungtae Kim. 2011, Oct 13. Yeast dynamin-like protein Vps1 in endocytic and recycling traffics. University of Missouri, Kansas City, MO
Kyoungtae Kim, Daobing Wang*, Jeff Sletto**, Jacob Hayden*, Brandon Tenay**. 2010. Nov. Yeast dynamin in endosomal trafficking. The Department of Cell Physiology and Biophysics, University of Arkansas Medical School, Little Rock, Arkansas.
Kyoungtae Kim, S. Nannapaneni*, S. Jain*, D. Pittsley**, A. Maysent**, and R. McDowell**. 2008. New insights into the endocytic roles of yeast dynamin-like protein Vps1. The Department of Biochemistry, University of Kansas Medical School, KA.

Conference Paper and PRESENTATIONS since employment at MSU: (*Graduate Student; ** Undergraduate Student): 303 presentations

2026

Magdalena Singleton, Emma Braun, and Kyoungtae Kim. The effect of tire wear particle 6PPD and 6PPDQ on HepG2 Liver Cancer cell metabolism. CNAS symposium (April 16).

Madi Frerichs, Abhishu Chand, Lana Jane Janson, Moupia Tajrin Oyshi, Mohammad Galib, Bon Mayanovic, and Kyoungtae Kim. Doxorubicin-loaded chitosan nanoparticles enhancing stability and targeted anticancer activity. CNAS Symposium. April 16.

Elijah Billue, Abhishu Chand, Nhi Le, Tony Astuhuaman, Ridwan Sakidja, and Kyoungtae Kim. A comprehensive study of quantum dots interactions with actin and an actin binding protein. CNAS symposium. April 16.

Braun, M. Metcalf and K. Kim, Department of Biology, Missouri State University. **TIRE WEAR PRODUCT 6PPD AND ITS QUINONE DERIVATIVE INDUCE MITOCHONDRIAL DYSFUNCTION IN *SACCHAROMYCES CEREVISIAE. The 2026 MAS, Springfield. MO***

Braun and K. Kim, Department of Biology, Missouri State University. **DESIGN, CREATION, AND IMPLEMENTATION OF A TARGETED DRUG DELIVERY SYSTEM FOR CERVICAL CANCER TREATMENT. 2026 MAS, Springfield MO**

T. Sandul and K. Kim. **PERFLUOROOCTANE SULFONATE (PFOS) TOXICITY ON YEAST CELLS: CELL VIABILITY, MITOCHONDRIAL MODIFICATIONS, AND RNA SEQUENCING. 2026 MAS, Springfield MO**

Chand, T.A. Davila, R. Sakidja and K. Kim, Department of Biology, Missouri State University. **QUANTUM DOTS INTERACTION WITH ACTIN AND α-ACTININ: BIOCHEMICAL AND COMPUTATIONAL ANALYSIS. 2026 MAS, Springfield MO**

P.Tran and K.Kim, Department of Biology, Missouri State University. **MOLECULAR MECHANISM OF TOXICITY INDUCED BY PERFLUOROOCTANE SULFONATE (PFOS) IN LIVER CELLS. 2026 MAS, Springfield MO**

M. Singleton, E. Braun and K. Kim, Department of Biology, College of Natural and Applied Sciences, Missouri State University. **Effect of Tire Wear Particle 6PPD and 6PPDq on HepG2 Liver Cancer Cell Metabolism. 2026 MAS, Springfield MO**

Ta'lor Sandul and Kyoungtae Kim. 2026. PFOS toxicity in yeast cells: the upregulation and downregulation of genes by RNAseq. **2026 SOT, San Diego**, CA. March 21-25.

Phrina Tran and Kyoungtae. 2026. PFOS induces cellular damage in HepG2 and THLE-2 cell models. 2026 SOT, **San Diego, CA**. March 21-25.

Emma Braun and Kyoungtae Kim. 2026. Folic acid tagged and carbon quantum dot loaded liposome for targeted drug delivery of doxorubicin to HeLa cervical cancer cells. **2026 SOT, San Diego, CA.** March 21-25.

Emma Braun, Mileah Metcalf, and Kyoungtae Kim. 2026. The antiozonants 6PPD and its quinone derivative effects on Saccharomyces cerevisiae. **2026 SOT, San Diego**, CA. March 21-25.

Lena Singleton, Emma Braun, and Kyoungtae Kim. 2026. Effect of tire wear particle 6PPD and 6PPDQ on HepG2 liver cancer cell metabolism. **2026 SOT, San Diego**, CA. March 21-25.

Abhishu Chand, M. Frerichs, L. Janson, M. Oyshi, M. Galib, R. Mayanovic, and K. Kim. 2026 Electrostatic vs. covalent doxorubicin conjugation: Optimizing chitosan nanoparticles for receptor-mediated cancer cell targeting. **2026 SOT, San Diego**, CA.

Elijah Billue, Abhishu Chand, Nhi Le, Astuhuaman Davila, R. Sakidja, and Kyoungtae Kim. 2026. Quantum dots interaction with cytoskeletal proteins via experimental observations and computational predictions. **2026 SOT, San Diego**, CA. March 21-25.

Faith Sheridan, Lana Janson, Wade Van Riessen, Markos A. Georgy, Madi Frerichs, Abhishu Chand, Kyoungtae Kim, Robert A. Mayanovic. 2026. Chitosan Nanoparticles loaded with doxorubicin and various surfactants for optimal cancer drug delivery. APS Conference for **Undergraduate women in Physics. March 14-15 Denver**, CO.

2025

Ta'lot Sandul* and Kyoungtae Kim. 2025. Perfluorooctane sulfonate (PFOS) toxicity in yeast cells:The upregulation and downregulation of genes by RNAseq. Oklahoma Cell Biology Symposium, Oklahoma City
Abhishu Chand*, Nhi Le*, and Kyoungtae Kim. 2025. How Quantum Dots Manipulate Function of Actin and Actin Binding Proteins. Oklahoma Cell Biology Symposium, Oklahoma City
Emma Braun* and Kyoungtae Kim. 2025. Tire antiozonants 6PPD and 6PPD-Q induce opposite effects on Saccharomyces cerevisiae growth and mitochondrial function. Oklahoma Cell Biology Symposium, Oklahoma City

Emma Braun and Kyoungtae Kim. 2025. EVALUATION OF CARBON QUANTUM DOTS AS A DRUG DELIVERY SYSTEM FOR CERVICAL CANCER TREATMENT. EIDF. MSU.
Abhishu Chand and Kyoungtae Kim. 2025. IMPACT OF QUANTUM DOTS ON ACTIN DYNAMICS AND THEIR INTERACTIONS WITH ACTIN-BINDING PROTEIN. EIDF. MSU.
Ta'lor Gold and Kyoungtae Kim. 2025. PERFLUOROOCTANE SULFONATE (PFOS) TOXICITY IN YEAST CELLS: VIABILITY AND MITOCHONDRIAL MODIFICATIONS. EIDF. MSU.
Phuong Tran and Kyoungtae Kim. 2025. TRANSCRIPTOMIC ANALYSIS OF LIVER CELL MODELS UPON EXPOSURE TO PERFLUOROOCTANE SULFONATE (PFOS). EIDF. MSU.

M. Metcalf and K. Kim, Department of Biology, Missouri State University. QUANTUM DOTS REDISTRIBUTE ACTIN STRESS FIBERS AND ALTER FOCAL ADHESION PROTEIN STRUCTURE ABUNDANCE CULMINATING IN IMPAIRED LIVER CELL MOBILITY. 2025 MAS, Warrensburg, April 12.
D. Kim1, A. Chand1, E. Braun1, N. Le1, K. Kim1, and R. Sedaghat-Herati2. 1Department of Biology, 2Department of Chemistry, Missouri State University. Ammonium and Phosphonium Chitosan Polyelectrolytes for Nucleic Acid Delivery. 2025 MAS, Warrensburg, April 12.
A. Chand, N. Le, and K. Kim, Department of Biology, Missouri State University. QUANTUM DOTS INTERACT WITH ACTIN AND ALPHA ACTININ, MODULATING THEIR ACTIVITIES. 2025 MAS, Warrensburg, April 12.
E. Braun, M. Metcalf, and K. Kim, Department of Biology, Missouri State University. TOXIC EFFECTS OF A TIRE ANTIOZONANT AND ITS QUINONE DERIVATIVE IN YEAST. 2025 MAS, Warrensburg, April 12.
E. Braun and K. Kim, Department of Biology, Missouri State University. CARBON-BASED QUANTUM DOTS AS A DRUG DELIVERY SYSTEM FOR CANCER THERAPY. 2025 MAS, Warrensburg, April 12.

Abhishu Chand, Nhi Le, and Kyoungtae Kim: An Extensive study focusing on quantum dots and their interaction with actin. The 2025 SOT conference, Orlando Florida, March 15-20, 2025.
Phrina Tran and Kyoungtae Kim: comparative transcriptomic analysis of liver cancer cells and normalized liver cells upon exposure to PFOS: unraveling molecular mechanisms. The 2025 SOT conference, Orlando Florida, March 15-20, 2025.

Emma Braun and Kyoungtae Kim: Synthesis and characterization of carbon-based quantum dot drug delivery system for cancer therapy. The 2025 SOT conference, Orlando Florida, March 15-20, 2025.
Mileah Metcalf and Kyoungtae: Human liver cells interaction with quantum dots results in destructive morphology alterations. The 2025 SOT conference, Orlando Florida, March 15-20, 2025.

2024

Phrina Tran and Kyoungtae Kim. 2024. Transcriptomic analysis of liver cancer cells and normalized liver cells upon treatment with perfluorooctane sulfonate. ASCB, December, San Diego, CA.
Abhishu Chand, Nhi Le, and Kyoungtae Kim. 2024. Quantum Dots- biomedicine carrier interaction with actin. ASCB, December, San Diego, CA.
Daniel S Kim, Min Zhang, Nhi Le, Seth Harris, and Kyoungtae Kim. 2024. Cisplatin less efficient in ML-1 thyroid cancer. HUB Forum, November 9. KUMC, Kansas
Mileah Metcalf and Kyoungtae Kim. 2024. Internalization of quantum dots results in destructive detachment of human liver cells. HUB Forum, November 9. KUMC, Kansas
Abhishu Chand, Nhi Le and Kyoungtae Kim. 2024. CdSe/ZnS Quantum Dots – Actin Characterization, Interaction and Mechanism. Arkansas INBRE. November 9, Fayetteville.
Phuong Tran and Kyoungtae Kim. 2024. Comprehensive analysis of liver cancer cells and normalized liver cells upon treatment with PFOS using RNA-sequence. Undergraduate Summer Symposium, Little Rock, AK. July 24, 2024.
Emma Braun and Kyoungtae Kim. 2024. Synthesis of Red Fluorescent Carbon Quantum Dots for Cancer Treatment. Undergraduate Summer Symposium, Little Rock, AK. July 24, 2024.
Abhishu, Nhi Le, and Kyoungtae Kim. 2024. Quantum dots compromise actin dynamics. Undergraduate Summer Symposium, Little Rock, AK. July 24, 2024.
Onyinye Okafor and Kyoungtae Kim. 2024. *INVESTIGATING QUANTUM DOT EFFECTS ON ENDOCYTOSIS AND EISOSOME ORGANIZATION.EIDF. 2024. MSU.*
Nhi Le, Abhishu Chand, Emma Brau, Chloe Keyes, Qia Wu, and Kyoungtae Ki. 2024. *AN INVESTIGATION ON THE MECHANISM OF QDS-MEDIATED DISRUPTION OF THE ACTIN CYTOSKELETON. EIDF. 2024. MSU.*
Seth Harris, Curtis Witt, and Kyoungtae Kim. 2024. *INVESTIGATING THE NANOTOXICOLOGY OF CDSE/ZNS QUANTUM DOT ALTERNATIVES IN HUMAN LIVER CELLS. EIDF. 2024. MSU.*
Abhishu Chand, Nhi Le, and Kyoungtae Kim. 2024. *INVESTIGATING THE EFFECTS OF CDSE/ZNS QUANTUM DOTS ON ACTIN DYNAMICS. EIDF. 2024. MSU.*
Raksyha Bhatta, Nhi Le, and Kyougtae Kim. 2024. *EFFECTS OF CDSE/ZNS QUANTUM DOTS ON THE EXPRESSION OF EXOSOMAL PROTEINS SECRETED BY HELA CERVICAL CANCER CELLS. EIDF. 2024. MSU.*
E. Braun, N. Li, and K. Kim. 2024. Treatment of Nanoparticles Hinders Downregulation of Transmembrane Transporters. CNAS symposium. April 2024.
A. Chand, N. Li, and K. Kim. 2024. Quantum dots alters actin dynamics. CANS symposium. 2024.
M. Metcalf and K. Kim. 2024. Internalization of Quantum Dots Result in Destructive Detachment of Human Liver Cells. CNAS symposium. April 2024.
P. Tran and K. Kim. 2024. From Kitchen to Liver: The Toxic Connection of PFOS in Non-stick Cookware. CNAS symposium. April 2024.
N. Le*, A. Chand**, and K. Kim. 2024. Direct Binding of Quantum Dots to Monomeric Actin; A New Insight of Quantum Dot Toxicity. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.

E. Braun**, N. Le*, and K. Kim. 2024. Downregulation of transmembrane transporter in cells with quantum dots. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.
P. Tran**, and K. Kim. 2024. Elucidating the hepatic toxicity of perfluorooctane sulfonate using HepG2 and THLE-2 cell models. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.
O. Okafor*, and K. Kim. 2024. Impact of fluorescent quantum dots on membrane organization and vesicle uptake. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.
A. Chand**, N. Le*, and K. Kim. 2024. In vitro actin dynamics impacted by quantum dots. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.
S. Harris*, and K. Kim. 2024. Nanotoxicology of CdSe/ZnS quantum dot alternatives in THLE-2 and HepG2 liver cells. The 63rd Annual Meeting &TOXEXPO Salt Lake City, Utah.

2023

Onyinye Okafor* and Kyoungtae Kim. 2023. The Impact of Quantum Dots on Endocytosis and Pinocytosis. ASCB. Boston.
Nhi Le*, Abhishu Chand**, Onyinye Okafor*, and Kyoungtae Kim. 2023. A proteomic approach to study the differentially expressed proteins upon quantum dot exposure. ASCB. Boston.
Nhi Le*, Abhishu Chand**, Onyinye Okafor*, Jonathan Routh**, Cameron Kirk**, Qihua Wu, Chloe Keyes**, Rishi Patel, and Kyoungtae Kim. 2023. Quantum dots bind to actin and adversely affect actin-mediated pathways in yeast. ASCB. Boston.
Phuong Tran** and Kyoungtae Kim. 2023. The toxic effects of perfluorooctane sulfonate (PFOS) on HepG2 and THLE-2. Arkansas InBre. Fayetteville, AK.
Abhishu Chand**, Nhi Le*, and Kyoungtae Kim. 2023. Qualitative and quantitative assessment of G-actin - Quantum dots interaction. Arkansas InBre. Fayetteville, AK.
Emma Braun**, Nhi Le*, and Kyoungtae Kim. 2023. Determination of Quantum Dots Effects on Downregulation of Yeast Transmembrane Transport Proteins. Arkansas InBre. Fayetteville, AK.
Kyoungtae Kim. 2023. Quantum dots' impacts on actin dynamics and membrane trafficking. Symposium on World Cell and Molecular Biology (CMB2023, May), Singapore.
Seth Harris* and Kyoungtae Kim. 2023. Cytotoxicity assessment of quantum dot alternatives in hepatocellular carcinoma and immortalized liver cells. EIDF.
Nhi Le* and Kyoungtae Kim. 2023. The assessment of quantum dots' intracellular trafficking and their interaction with yeast proteins. EIDF.
Onyinye Okafor* and Kyoungtae Kim. 2023. Quantum Dots on membrane organization and endocytosis of budding yeast. EIDF
Emma Braun**, Nhi Le*, and Kyoungtae Kim. 2023. Biochemical study of characterizing the Interaction between Quantum dots and actin. 2023 CNAS Undergraduate Symposium.
Kyoungtae Kim 2023. QDs' Trafficking and Its Impact on Yeast Polarization and Actin Filament. The 2023 Cell and Experimental Biology (April). Houston, Texas.
Seth Harris* and Kyoungtae Kim. APOPTOTIC PATHWAY PROTEIN EXPRESSION VARIANCE IN METAL OXIDE AND QUANTUM DOT TREATED HELA CELLS. 2023 Missouri Academy of Science (MAS), Joplin, MO
Onyinye Okafor* and Kyoungtae Kim. THE EFFECT OF QUANTUM DOTS ON ENDOCYTOSIS, EISOSOME, AND VACUOLE ORGANIZATION. 2023 Missouri Academy of Science (MAS), Joplin, MO
Nhi Le* and Kyoungtae Kim. The intracellular trafficking of CdSe/ZnS QDs and its impact on yeast actin dynamics. 2023 Missouri Academy of Science (MAS), Joplin, MO
Kyoungtae Kim, Siddak Dhaliwal*, and Carly Crawford**. THE MECHANISM OF YEAST

DYNAMIN RECRUITMENT TO THE LATE ENDOSOME. 2023 Missouri Academy of Science (MAS), Joplin, MO

Emma Braun**, Nhi Le*, and Kyoungtae Kim. Quantum Dot Protein Interactions. 2023 Missouri Academy of Science (MAS), Joplin, MO

Prithvi Nagarajan. The Utilization of Prazosin, Haloperidol, and Chlorpromazine to Effectively Treat Hepatocellular Carcinoma. 2023 Missouri Junior Academy of Science (MAS), Joplin, MO

2022

Nhi Le and Kyoungtae Kim. Augmented actin cable fragmentation and slow turnover rate of Abp1-GFP with core-shelled quantum dots. 2022. American Society of Cell Biology (ASCB)

Alyse Peters and Kyoungtae Kim. Effects of ZnO and CuO NPs on human thyroid cancer cells (ML-1) s Rat Medullary thyroid carcinoma (CA77). 2022 ASCB.

Nhi Le and Kyoungtae Kim. Cadmium Quantum Dots Affect Receptor Mediated Endocytosis and Cell Polarity. Yeast Genetics Meeting 2022. UCLA, California.

Min Zhang, Daniel S. Kim, and Kyoungtae Kim. Intracellular Trafficking and Distribution of Cd and InP Quantum Dots in HeLa and ML-1 Thyroid Cancer Cells. EIDF. May 7. 2022

Alyse Peters, Nakaja Weaver, Kayti Monahan, and Kyoungtae Kim. EFFECTS OF ZnO AND CuO NPS ON HUMAN THYROID CANCER CELLS (ML-1) VS RAT MEDULLARY THYROID CARCINOMA (CA77). EIDF. May 7. 2022

Nhi Le, Jonathan Routh, Cameron Kirk, and Kyoungtae Kim. An Investigation of the Impact of Cadmium Selenide Zinc Sulfide Quantum Dots on Saccharomyces cerevisiae. CNAS Research symposium. May 5. 2022

D. S. Kim, M. Zhang, N. Le, S. Harris, and K. Kim. ML-1 THYROID CANCER CELLS ARE MORE RESISTANT TO PLATINUM-BASED CHEMOTHERAPEUTIC AGENTS. CNAS Research symposium. May 5. 2022

Alyse Peters, Nakaja Weaver, Kayti Monahan, and Kyoungtae Kim. EFFECTS OF ZnO AND CuO NPS ON HUMAN THYROID CANCER CELLS (ML-1) VS RAT MEDULLARY THYROID CARCINOMA (CA77). CNAS Research symposium. May 5. 2022

Min Zhang*, Daniel S Kim**, and Kyoungtae Kim. Intracellular Distribution of Cd and InP Quantum Dots in HeLa and ML-1 Thyroid Cancer Cells. Missouri Academy of Science. April 23, 2022. Fayette, MO 65248.

Alyse Peters*, Kathryn Monahan*, Nakaja Weaver **, and Kyoungtae Kim. Effects of ZnO and CuO NPs on human thyroid cancer cells (ML-1) vs rat medullary thyroid carcinoma (CA77). Missouri Academy of Science. April 23, 2022. Fayette, MO 65248.

Daniel S Kim**, Min Zhang*, Nhi Le**, Seth Harris**, and Kyoungtae Kim. ML-1 thyroid cancer cells are more resistant to platinum-based chemotherapeutic agents. Missouri Academy of Science. April 23, 2022. Fayette, MO 65248.

Nhi Le**, Jonathan Routh**, and Kyoungtae Kim. An Investigation of the Impact of Cadmium Selenide Zinc Sulfide Quantum Dots on *Saccharomyces cerevisiae* Yeast Cells. Missouri Academy of Science. April 23, 2022. Fayette, MO 65248.

2021

D. S. Kim**, M. Zhang*, N. Le**, S. C. Harris**, K. Kim. Effects of platinum-based

chemotherapeutic agents on ML-1 Thyroid cancer cells. ASCB conference, December 1-10

M. Zhang*, D. S. Kim**, and K. Kim. Intracellular trafficking of Cd and InP quantum dots on their toxicity profile in HeLa and ML-1 thyroid cancer cells. ASCB conference, December 1-10

K. Kim, R. Sedaghat-Herati, A. McMullen*, D. Ehie*, Q. Wyatt*. Phosphonium and ammonium Chitosan Polymers for high performance Gene Delivery. ASCB conference, December 1-10

N. Le**, C. Kirk**, and K. Kim. The investigation of cadmium selenide zinc sulfide quantum dot's trafficking in budding yeast cells. ASCB conference, December 1-10

A. Peters*, N. Weaver**, K. Monahan*, and K. Kim. Effects of zinc oxide and copper oxide nanoparticles on human thyroid cancer cells. ASCB conference, December 1-10

Nhi Le** and Kyoungtae Kim. 2021. An Investigation of the Intracellular Trafficking of Cadmium Selenide Zinc Sulfide Quantum Dots in Yeast Cells. The 2021 Arkansas Idea Network of Biomedical Research Excellence.

Daniel S Kim**, Min Zhang*, Nhi Le**, and K Kim. 2021. ML-1 Thyroid Cancer Cells are more resistant to platinum-based chemotherapeutic agents over HeLa Cervical Cancer Cells. The 2021 Arkansas Idea Network of Biomedical Research Excellence.

Min Zhang* and Kyoungtae Kim. 2021. Is Human Cervical Cancer More Sensitive to Cd and InP Quantum Dots Compared to Human Thyroid Cancer Cell? EIDF. May 1, 2021.

Victoria Davenport* and Kyoungtae Kim. 2021. InP/ZnS Quantum dots: lighting the way to innovative cancer treatment. EIDF. May 1, 2021.

Cullen Horstmann* and Kyoungtae Kim. 2021. Comparing the Toxicity of CdSe/ZnS and InP/ZnS Quantum Dots in Saccharomyces cerevisiae. EIDF. May 1, 2021.

Kathryn Monahan**, Cullen Horstmann, and Kyoungtae Kim. 2021. Investigating the potential toxicity of engineered nanomaterials on Saccharomyces cerevisiae. CNAS Undergraduate Research Symposium. April 27-May 3, 2021

Nhi Le**, Cameron Kirk**, and Kyoungtae Kim. 2021. Kinetic analysis of cadmium quantum dot's traffic. CNAS Undergraduate Research Symposium. April 27-May 3, 2021

Madeline Merrill**, Victoria Davenport*, and Kyoungtae Kim. 2021. A look at chitosan derivatives and how they could potentially be applied in biomedical body processes. CNAS Undergraduate Research Symposium. April 27-May 3, 2021

Alyse Peters** and Kyoungtae Kim. 2021. Nanoparticle effects on Human Thyroid cancer cells. CNAS Undergraduate Research Symposium. April 27-May 3, 2021

Victoria Davenport* and Kyoungtae Kim. 2021. An assessment of InP/ZnS as potential anti-cancer therapy: Quantum dot treatment induces stress on HeLa cells. EXPERIMENTAL BIOLOGY 2021 (International conference) April 27-30, 2021

Cullen Horstmann* and Kyoungtae Kim. 2021. Comparing Transcriptome Profiles and Relative Toxicity of CdSe/ZnS and InP/ZnS Quantum Dots in *Saccharomyces cerevisiae.* EXPERIMENTAL BIOLOGY 2021 (International conference) April 27-30, 2021

Alyse Peters** and Kyoungtae Kim. 2021. Nanoparticle Effects on Human Thyroid cancer cells. Missouri Academy of Science, Columbia, MO (State) April 23-24, 2021.

Victoria Davenport*, Madeline Merrill**, and Kyoungtae Kim. 2021. A comparison of chitosan derivatives and their potential for biomedical applications of intra-cellular delivery. Missouri Academy of Science, Columbia, MO (State) April 23-24, 2021.

Cullen Horstmann* and Kyoungtae Kim. 2021. An Investigation on Transcriptome Profile Alterations and Toxicity of CdSe/ZnS and InP/ZnS Quantum Dots in Baker's Yeast. Missouri Academy of Science, Columbia, MO (State) April 23-24, 2021.

Min Zhang* and Kyoungtae Kim. 2021. Cd and InP Quantum Dot's Impacts on ML-1 Thyroid and HeLa Cells and Their Inner Traffics. Missouri Academy of Science, Columbia, MO (State) April 23-24, 2021.

2020

Victoria Davenport** and Kyoungtae Kim. 2020. An assessment of InP/ZnS as potential anti-cancer therapy: quantum dot treatment induces stress on HeLa cells. CNAS undergraduate research symposium

Glory Ehie* and Kyoungtae Kim. 2020. Myosin 2's effect on Vps10 and Snc1 traffic. CNAS undergraduate research symposium

Cullen Horstmann* and Kyoungtae Kim. 2020. Comparing Transcriptome Profiles of Cadmium Selenide/Zinc Sulfide and Indium Phosphide/Zinc Sulfide in *Saccharomyces cerevisiae*. 2020 Virtual American Society for Cell Biology/EMBO meeting

Cullen Horstmann*, Daniel S Kim**, Chelsea Campbell*, and Kyoungtae Kim: Transcriptome Profile Alteration with Cadmium Selenide/Zinc Sulfide Quantum Dots in *Saccharomyces cerevisiae*. 2020 Virtual American Society for Cell Biology/EMBO meeting

Victoria Davenport**, Basant Hens**, Jared Smothers*, Kyoungtae Kim, Rishi Patel. The Future of Anticancer Drugs: A Cytotoxicity Assessment Study of CdSe/ZnS and InP/ZnS Quantum Dots. 2020 Virtual American Society for Cell Biology/EMBO meeting

Husref Rizvanovic*, Kafayat Yusuf*, and Kyoungtae Kim. 2020. Cytotoxic assessments and RNAseq interpretation of Cyanoximate-treated cancer cells. 2020 Virtual American Society for Cell Biology/EMBO meeting

Vy Nguyen*, Jared Smothers*, Paul Ballhorn**, S. Kottapalli, Anh Ly*, Julia Villarreal**, and Kyoungtae Kim. 2020. Trans-membrane protein traffics by loss of yeast type V myosin. 2020 Virtual American Society for Cell Biology/EMBO meeting

Glory Ehie*, Vy Nguyen*, and Kyoungtae Kim. 2020. Myosin 2's effect on Vps10 and Snc1 traffic. Arkansas INBRE, Fayetteville, AK. November.

Victoria Davenport*, Kyoungtae Kim. 2020. Induction of Stress on HeLa Cells from InP/ZnS Quantum Dot Treatment Arkansas INBRE, Fayetteville, AK. November

Glory Ehie*, Vy Nguyen*, and Kyoungtae Kim. 2020. Analyzing myosin's role in sorting Vps10 and in transporting Snc1. MOLSAMP virtual PPT presentation

Cameron Kirk**, Vy Nguyen*, and Kyoungtae Kim, 2020. Myosin 2 transportation of Vps10 cargo and Cps1-GFP vesicle entry via point mutated Myo2. MOLSAMP virtual PPT presentation

Husref Rizvanovic* and Kyoungtae Kim. 2020. Effects of alternative chemotherapeutic agents on thyroid cancer cell line ML-1. IDF, MSU. May 2.

Vy Nguyen*, Jared Smothers*, Anh Ly*, Julia Villarreal**, and Kyoungtae Kim. 2020. Yeast myosin for the traffic bounds towards the trans-Golgi network. IDF, MSU. May 2.

Kafayat Yusuf* and Kyoungtae Kim. 2020. Effects of newly synthesized cyanoximates as an alternative cancer therapeutic agent. IDF, MSU. May 2.

Ehsan Suez* and Kyoungtae Kim. 2020. Effects of dose-dependent Vps1 on membrane fusion dynamics. IDF, MSU. May 2.

Sravya Rallabandi* and Kyoungtae Kim. 2020. Effect of AgNP and CdSe/ZnS QDs on endocytosis and protein recycling in yeast. IDF, MSU. May 2.

Cullen Horstmann* and Kyoungtae Kim. 2020. Comparing Transcriptome Profiles of Silver, Cadmium Selenide/Zinc Sulfide, Indium Phosphide/Zinc Sulfide, and Palladium Quantum

Dots in *Saccharomyces cerevisiae*. April, 2020. American Society for Biochemistry and Molecular Biology (abstract published).

Julia Villarreal**, Anh M Ly*, Vy Nguyen*, and Kyoungtae Kim. 2020. Myosin V-mediated cargo traffic toward the trans-Golgi network and Myosin V implication in Sinc1 exocytosis. February, 2020. Emerging Researchers National Conference, February 2020.

Deborah Ehie* and Kyoungtae Kim. 2020. TEPB-CS and TEAB-CS: Gene therapy alternatives. February, 2020. Emerging Researchers National Conference, February 2020.

2019

Ehsan Suez*. 2019. CNAS 3M Thesis competition: Tiny bubbles: explaining membrane fusion dynamics. MSU. November.

Kafayat Yusuf*. 2019. CNAS 3M Thesis competition: Novel Chemotherapeutic agents for fighting cancer. MSU. November.

Ehsan Suez*, Sravya Rallbandi*, and Kyoungtae Kim. 2019. Novel function of Vps1 on membrane fusion. The 12th Annual Midwest Yeast conference. Chicago, IL. Oct 5.

Onika Olson**, Ehsan Suez*, Sravya Rallabandi*, and Kyoungtae Kim. 2019. Dynamin-Assisted Proteoliposome Fusion. The 12th Annual Midwest Yeast conference. Chicago, IL. Oct 5.

Onika Olson**, Ehsan Suez*, Sravya Rallabandi*, and Kyoungtae Kim. 2019. Dynamin GTPase, a Facilitator of Proteoliposome Fusion Arkansas INBRE, Fayetteville, AK. October.

Vy Nguyen*, Juia Villarreal**, Mya Ly*, and Kyoungtae Kim. 2019. Traffic of Snc1 and Vps10 via myosin-based motility. The 12th Annual Midwest Yeast conference. Chicago, IL. Oct 5.

Husref Rizvanovic*, Daniel Pinheiro, Kyoungtae Kim, and Johnson Thomas. 2019. Chlorotoxin conjugated with saporin reduces viability of ML-1 thyroid cancer cells in vitro. The 89th Annual Meeting of the American Thyroid association. Oct30-Nov 3, 2019

Ryan Windish*, Wes Short*, and Kyoungtae Kim. 2019. Assessment of Vps1 Targeting and Effects of Ubiquitin-Binding Residue Mutations in Vps1. The 12th Annual Midwest Yeast conference. Chicago, IL. Oct 5.

Basant Hens** and Kyoungtae Kim, 2019. Assessment of quantum dots on cell toxicity. Arkansas INBRE, Fayetteville, AK. October.

Cullen Horstmann*, Daniel S Kim, Chelsea Campbell**, and Kyoungtae Kim. 2019 Transcriptome Profile Analysis with Various Nanomaterial in *Saccharomyces cerevisiae.* Midwest Yeast Conference. Chicago. IL. October.

Cullen Horstmann* and Kyoungtae Kim. 2019. What doesn't kill you makes you...develop acute health problems down the road. the German-American Science Slam. St. Louis, Missouri. November.

Deborah Ehie* and Kyoungtae Kim. 2019. TEAB and TEPB: gene therapy alternatives. IDF (May 4).

Kyoungtae Kim. 2019. Study of intracellular traffics and assessment of anticancer therapeutics and engineered nanoparticles on cells. The CNAS undergraduate symposium. May 3, 2019

Julia Villarreal**, Mya Ly*, and Kyoungtae Kim. 2019. Myosin-V mediated cargo traffic toward the trans-Golgi network. 2019 CNAS symposium. May.

Husref Rizvanovic**, Hanna Williams**, and Kyoungtae Kim. 2019. Effects of alternative chemotherapeutic agents on thyroid cancer. 2019 CNAS symposium. May.

Onika Olson** and Kyoungtae Kim. 2019. Dynamin-assisted proteoliposome fusion. 2019 CNAS Symposium. May.

Cullen Horstmann**, Daniel Kim, and Kyoungtae Kim. 2019. A comparison of the effects of silver and cadmium nanomaterials on baker's yeast. 2019 CNAS symposium. May.

Basant Hens** and Kyoungtae Kim. 2019. Can quantum dots inhibit the growth of cancer cells. 2019 CNAS symposium. May.

Husref Rizvanovic**, Hanna Williams**, Daniel Pinhero, Kyoungtae Kim, and Johnson Thomas. 2019. Chlorotoxin Conjugated with Saporin Reduces Viability of ML-1 Thyroid Cancer Cells In Vitro. The 89th Annual Meeting of the American Thyroid Association in Chicago, Illinois. November

Ehsan Suez*, Jared Smothers*, Onika Olson**, and Kyoungtae Kim. 2019. Novel function of Vps1 in membrane fusion. Missouri Academy of Science, Maryville, MO (April12-13).

Kafayat Yusuf* and Kyoungtae Kim. 2019. The use of palladium and platinum cyanoximates in the treatment of cancer cells, initiating a new approach to cancer chemotherapy. Missouri Academy of Science, Maryville, MO (April12-13)

Mya Ly*, Vy Nguyen*, Jared Smothers*, Sravya Kottapalli*, Julia Villarreal**, and Kyoungtae Kim. 2019. Type 5 myosin for trafficking of snc1 and vps10 cargo. Missouri Academy of Science, Maryville, MO (April12-13)

Cullen Horstmann**, Daniel S Kim, and Kyoungtae Kim. 2019. An investigation and comparison of the effects of silver and cadmium nanoparticles on baker's yeast. Missouri Academy of Science, Maryville, MO (April12-13)

Deborah Ehie* and Kyoungtae Kim. 2019. TEAB and TEPB: gene therapy alternatives. Missouri Academy of Science, Maryville, MO (April12-13)

Onika Olson**, Jared smothers*, Ehsan Suez*, Sravya Rallabandi*, and Kyoungtae Kim. 2019. Dynamin-assisted proteoliposome fusion. Missouri Academy of Science, Maryville, MO (April12-13)

Julia Villarreal**, Vy Nguyen*, Jared Smothers*, Mya Ly*, and Kyoungtae Kim. 2019. Yeast myosin and the Trans Golgi Network. MoLSAMP meeting, Jefferson, MO. March 9.

2018

Deborah Ehie**, Jared Smothers*, and Kyoungtae Kim. 2018. CdSe/ZnS and InP/ZnS QDs effect on HeLa cell regulation mechanisms. Midwest Yeast Conference, Northwestern University. Evanston, IL.

Cullen Horstman** and Kyoungtae Kim. 2018. A Transcriptomic Assessment of the Effects of CdSe/ZnS and InP Quantum Dots on Baker's Yeast. Midwest Yeast Conference, Northwestern University. Evanston, IL.

Vy Nguyen*, Jared Smothers*, Mya Ly*, Sravya Kottapalli*, and Kyoungtae Kim. 2018. Yeast myosin for the traffic bound towards the trans Golgi network (TGN). Midwest Yeast Conference, Northwestern University. Evanston, IL.

Jared Smothers*, Onika Olson**, Ehsan Suez*, and Kyoungtae Kim. 2018. Endosome-to-Golgi SNARE Mediation of Liposome Fusion. Midwest Yeast Conference, Northwestern University. Evanston, IL.

Onika Olson**, Jared Smothers*, and Kyoungtae Kim. 2018. Endosome-to-Golgi SNARE mediation of liposome. Arkansas INBRE Research Conference. Fayetteville, AK. November 2-3.

Ryan Windish** and Kyoungtae Kim. 2018. Site-directed mutagenesis of known Vps1

ubiquitination sites. Arkansas INBRE Research Conference. Fayetteville, AK. November 2-

Cullen Horstmann** and Kyoungtae Kim. 2018. A Genomic assessment of the effects of CdSe/ZnS and InP quantum dots on baker's yeast. Arkansas INBRE Research Conference. Fayetteville, AK. November 2-3.

Husref Rizvanovic**, Olivia N. Horton**, Cullen Horstmann**, and Kyoungtae Kim. Determining The Exact Fold Changes Of Target Genes With Primer Efficiency Tests. CNAS Undergraduate Symposium.

Cullen Horstmann**, Husref Rizvanovic**, Olivia Horton**, and Kyoungtae Kim. Analysis of Nanoparticle-mediated Gene Expression to determine underlying mechanisms of cell stress. CNAS Undergraduate Symposium.

Kyoungtae Kim. 2018. Yeast dynamin plays a key role in the endosome-to-Golgi Traffic. Montreal, Canada. May 14-15.

Kyoungtae Kim, 2018. Functional upregulation of ribosome biogenesis in yeast treated with silver or CdSe/ZnS nanoparticles. Montreal, Canada. May 14-15.

John Short* and Kyoungtae Kim. 2018. Investigating the protein recruitment mechanism of dynamin-like Vps1. IDF, May 5, 2018

Mariel Delgado Cruz* and Kyoungtae Kim. 2018. Exploring the potential role of Vps1 as a Golgi fusion protein. IDF, May 5, 2018

Kyoungtae Kim, Pelin Makaraci*, Uma Saimani*, and Jared Smothers**. 2018. Yeast dynamin for membrane fusion. Missouri Academy of Science, Rolla, MO. April 27-28.

Cullen Horstmann** and Kyoungtae Kim. 2018. Silver nanoparticles on yeast viability with bioinformatics analysis. Missouri Academy of Science, Rolla, MO. April 27-28.

Paul Ballhorn**, Jared Smothers*, Vy Nguyen*, and Kyoungtae Kim. 2018. Yeast myosin 2 for the traffic bound to the trans-Golgi network (TGN). Missouri Academy of Science, Rolla, MO. April 27-28.

Jared Smothers*, Paul Ballhorn*, Vy Nguyen* and Kyoungtae Kim. 2018. Myosin mediates protein recycling toward the Golgi. Annual Joint Meeting of the Missouri and Missouri Valley Branches of the American Society of Microbiology, March 9-10, 2018, Kansas.

John C. (Wes) Short (Masters)*, Shiva Kumar Goud Gadila* and Kyoungtae Kim. 2018. Searching for Recruitment Domains and Residues of Vps1 to Target Membrane. Annual Joint Meeting of the Missouri and Missouri Valley Branches of the American Society of Microbiology, March 9-10, 2018, Kansas.

Cullen Horstmann** and Kyoungtae Kim. 2018. Silver Nanoparticles on Yeast Viability with Bioinformatics Analysis. Annual Joint Meeting of the Missouri and Missouri Valley Branches of the American Society of Microbiology, March 9-10, 2018, Kansas.

Ryan Windish** and Kyoungtae Kim. 2018 Site Directed Mutagenesis of Known Vps1 Ubiquitination Sites. Annual Joint Meeting of the Missouri and Missouri Valley Branches of the American Society of Microbiology, March 9-10, 2018, Kansas.

Mariel Delgado Cruz* and Kyoungtae Kim. 2018 Exploring the Potential Role of Vps1 as a Fusion Protein. Annual Joint Meeting of the Missouri and Missouri Valley Branches of the American Society of Microbiology, March 9-10, 2018, Kansas.

2017

Jared Smothers*, Paul Ballhorn**, and Kyoungtae Kim. 2017. Myosin mediates protein recycling towards the Golgi. Arkansas InBre, Oct 27-28.

Cullen Horstmann**, Chelsea Campbell**, and Kyoungtae Kim. 2017. The Effect of Silver and

Cadmium on Gene Expression. Arkansas InBre. Oct 27-28.

Pelin Makaraci*, Uma Saimani*, Jared Smothers**, and Kyoungtae Kim. 2017. Yeast dynamin and Ypt6 converge on the GARP for tethering/fusion at the TGN. Midwest Yeast Conference. Northwestern University, Evanston IL, October, 2017.

Cullen Horstmann**, Chelsea Campbell**, and Kyoungtae Kim. 2017. Global gene expression patterns with silver and cadmium nanoparticles in yeast. Midwest Yeast Conference. Northwestern University, Evanston IL, October, 2017.

Jared Smothers, Uma Saimani, and Kyoungtae Kim. 2017. Dynamic dynamin interacts with the tether GARP. CNAS Undergraduate Research Symposium. April, 2017

Chelsea Campbell, Daniel S Kim, and Kyoungtae Kim. 2017. Differential Gene Expression profile Saccaromyces cerevisiae exposed to Ag and CdSe/ZnS nanoparticles. CNAS Undergraduate Research Symposium. April, 2017

Sara Woodman, Justin Conover, Chris Trousdale, Kyoungtae. Endosome to Golgi trafficking requires optimal levels of lipids. 2017 ASM Branch meeting. Springfield, MO.

John Short, Kyoungtae Kim. Dull-length Vps1 targets Golgi and endosomes, not endocytic sites. 2017 ASM Branch meeting. Springfield, MO.

Pelin Makaraci, Kyoungtae Kim, Hyoeun McDermott. Yeast dynamin and Ypt6 in parallel pathways during protein recycling from the early endosomes to the late Golgi. 2017 ASM Branch meeting. Springfield, MO.

Jared Smothers, Uma Saimani, Kyoungtae Kim. The Golgi organizer, Vps1, functions together with the tethering GARP. 2017 ASM Branch meeting. Springfield, MO.

Mariel Delgado Cruz, Shiva Kumar Goud Gadila, Uma Saimani, John short, Hyoeun McDermott, Kyoungtae Kim. Yeast dynamin Vps1 association with clathrin: an important interaction for Golgi homeostasis. 2017 ASM Branch meeting. Springfield, MO.

Chelsea Campbell, Julie Curless, Daniel Kim, Kyoungtae Kim. Investigating the effects of nanomaterials in yeast. 2017 ASM Branch meeting. Springfield, MO.

2016

Pelin Makaraci*, Hyoeun McDermott*, Mariel Delgado Cruz*, Kyoungtae Kim. Yeast dynamin for the fusion of endosome-derived vesicles at the Golgi. American Society of Cell Biology, 2016. San Francisco, CA.

Uma Saimani*, Jared Smothers**, Kyoungtae Kim. Vps1 functions with the GARP tethering complex for endosome-to-Golgi traffic. American Society of Cell Biology, 2016. San Francisco, CA.

Sara Woodman*, Justin Conover**, Chris Trousdale*, Kyoungtae Kim. Yeast membrane lipid imbalance leads to trafficking defect toward the Golgi. American Society of Cell Biology, 2016. San Francisco, CA.

Shiva Gadila*, Uma Saimani*, M.A. Williams*, M. Delgado Cruz**, P. Makaraci*, Kyoungtae. Kim. Yeast dynamin association with clathrin and its physiological roles. American Society of Cell Biology, 2016. San Francisco, CA.

Mariel Delgado Cruz*, Shiva Kumar Goud Gadila*, Uma Saimani*, Michelle Williams*, Pelin Makaraci*, and Kyoungtae Kim. Yeast dynamin Vps1 associates with clathrin to facilitate vesicular trafficking and controls Golgi homeostasis. Arkansas INBRE research Conference, 2016, Fayetteville, AR

Uma Saimani*, Jared Smothers**, and Kyoungtae Kim. Vps1 functions with the GARP tethering complex for endosome -to- Golgi traffic. Arkansas INBRE research Conference,

2016, Fayetteville, AR

Pelin Makaraci* and Kyoungtae Kim. Yeast dynamin for the fusion of endosome-derived vesicles at the Golgi. Arkansas INBRE research Conference, 2016, Fayetteville, AR

Sara E. Woodman*, Justin Conover**, Chris Trousdale*, and Kyoungtae Kim. Yeast Membrane Lipid Imbalance Leads to Trafficking Defects toward the Golgi. Arkansas INBRE research Conference, 2016, Fayetteville, AR

John Short** and Kyoungtae Kim. Subcellular Targeting and Physiological Significance of Dynamin-like Protein, Vps1. Arkansas INBRE research Conference, 2016, Fayetteville, AR

Pelin Makaraci* and Kyoungtae Kim. Yeast dynamin GTPase for the fusion of endosome-derived vesicles at the Golgi. 2016. IDF, MSU.

Uma Saimani* and Kyoungtae Kim. Functional connection between Vps1 and GARP Vps51 at the Golgi in budding yeast. 2016. IDF, MSU.

Sara Woodman* and Kyoungtae Kim. Membrane lipid imbalance in Saccharomyces cerevisiae leads to trafficking defects toward the Golgi. 2016. IDF, MSU.

Mariel Delgado Cruz**, Chris Trousdale*, and Kyoungtae Kim. Understanding the functional relationship between the retromer complex and Vps1. CNAS Symposium, April. 2016.

John Short** and Kyoungtae Kim. Subcellular localization and function of truncated Vps1 informs physiological significance of dynamin-like proteins. CNAS Symposium, April. 2016.

Mariel Delgado Cruz**, Chris Trousdale* and Kyoungtae Kim. Understanding the functional relationship between the retromer complex and Vps1. Annual Meeting of the Missouri Valley Branch and The Missouri Branch of the American Society of Microbiology (March, 2016).

Bryan Banh*, Hyoeun McDermott*, Shiva Kumar Goud Gadila*, and Kyoungtae Kim Characterization of Vps1 Domain Interaction with ESCRT Subunits. ASM. Kansas.

Uma Saimani*, Ashley Smock** and Kyoungtae Kim. Functional Connection between Vps1 and GARP Vps51 at the Golgi in Budding Yeast. ASM. Kansas.

Pelin Makaraci*, Aria H. McDermott*, and Kyoungtae Kim. Dynamin Acts Downstream of Ypt6 for Membrane Fusions. ASM. Kansas.

Sara Woodman*, Justin Conover**, Chris Trousdale*, and Kyoungtae Kim. Membrane Lipid Imbalance in *Saccharomyces cerevisiae* Leads to Trafficking Defects toward the Golgi. ASM. Kansas.

John Short**, Shiva Kumar Goud Gadila*, and Kyoungtae Kim. Hitting the Target: Biochemical Interaction of Vps1 and the Golgi. ASM. Kansas.

John Short** and Kyoungtae Kim. Fullerenols alter growth and gene expression of yeast cells. JVIC-CNAS Symposium, February 24, 2016. Jordan Valley Innovation Center.

2015

Bryan Banh*, Hyoeun McDermott*, Shiva Kumar Goud Gadila*, and Kyoungtae Kim. 2015. Yeast dynamin interacts with subunits of ESCRT complexes and with novel binding proteins. *Arkansas InBre. Fayetteville, AK.*

Shiva Kumar Goud Gadila*, Michelle Williams*, Hyoeun McDermott*, John short**, Mariel Delgado Cruz**, and Kyoungtae Kim. 2015. Physical interaction between the scission protein dynamin and the coat protein clathrin at the TGN in *Saccharomyces cerevisiae*. *Arkansas InBre. Fayetteville, AK.*

Sara Woodman*, Justin Conover**, Chris Trousdale*, and Kyoungtae Kim. 2015. Lipid

Homeostasis required for proper protein recycling. *Arkansas InBre. Fayetteville, AK.*

Pelin Makaraci*, Hyoeun McDermott*, and Kyoungtae Kim. 2015. Rab GTPase and dynamin function together at the late Golgi in Yeast. *Arkansas InBre. Fayetteville, AK.*

Uma Saimani*, Ashley Smock**, and Kyoungtae Kim. 2015. Physical interaction between Vps1 and GARP Vps51 at the Golgi in *Saccharomyces cerevisiae*. *Arkansas InBre. Fayetteville, AK.*

Kyoungtae Kim, Sara Woodman**, and Short John**. Carbon nanomaterials negatively affect cell viability and gene Expression. 2015. The Sixteenth International Conference on the Science and Application of Nanotubes, Nagoya, Japan.

John short** and Kyoungtae Kim. Fullerenol induced changes in mRNA and growth of yeast cells. 2015. MSU nano research workshop.

Sara Woodman** and Kyoungtae Kim. The effect of carbn nanotubes on yeast growth and gene expression. 2015. MSU nano research workshop.

Chris Trousdale*, Hyoeun Mcdermott*, Katie Schmelzle**, Katelyn Bartlett*, and Kyoungtae Kim. Functional connection between yeat dynamin and retromer at the endosome. 2015. IDF, MSU

Bryan Banh and Kyoungtae Kim. Novel yeast dynamin binding proteins. 2015. IDF, MSU

Shiva Kumar Goud Gadila*, Michelle Williams*, Hyoeun McDermott*, and Kyoungtae Kim. Yeast dynamin and clathrin interaction. 2015. IDF, MSU (Outstanding poster presentation Award)

Pelin Makaraci*, Hyoeun McDermott*, and Kyoungtae Kim. Vps1 in action with the membrane fusion machinery at the late Golgi. 2015. IDF, MSU

Uma Saimani*, Pelin Makaraci*, and Kyoungtae Kim. Interaction study of Vps1 with GARP Vps51. 2015. IDF, MSU

Justin Conover**, Chris Trousdale*, and Kyoungtae Kim. Changes in membrane lipid composition disrupt yeast protein recycling. 2015. CNAS symposium, MSU

John, C. W**. Short and Kyoungtae Kim. Fullerenols alter growth and protein activity in yeast cells. 2015. CNAS symposium, MSU

Sara E. Woodman** and Kyoungtae Kim. Toxicity of carbon nanotubes t budding yeast. 2015. CNAS symposium, MSU

Pelin Makaraci* and Kyoungtae Kim. Vps1 and Cytosolic Protein Interactions During Protein Recycling. 2015. ASM Missouri Valley. Lincoln, Nebraska

Bryan Banh*, Hyoeun McDermott*, Shiva Kumar Goud Gadila*, and Dr. Kyoungtae Kim. Novel yeast dynamin binding proteins. 2015. ASM Missouri Valley. Lincoln, Nebraska

Shiva Kumar Goud Gadila*, Michelle Williams*, Hyoeun McDermott*, and Kyoungtae Kim. Yeast dynamin and Clathrin interaction. 2015. ASM Missouri Valley. Lincoln, Nebraska

John Short**, Sara Woodman**, and Kyoungtae Kim. Fullerenols Impact Cell Growth and Gene Expression of *Saccharomyces cerevisiae.* ASM Missouri Valley. Lincoln, Nebraska

Sara E. Woodman** and Kyoungtae Kim. The Effects of Carbon Nanotube Exposure on Cell Growth and Gene Expression of *Saccharomyces cerevisiae.* 2015. ASM Missouri Valley. Lincoln, Nebraska (Won First prize award in undergraduate oral presentation)

Christopher R. Trousdale* and Kyoungtae Kim. Functional Connection between Yeast Dynamin and Retromer at the endosome. 2015. ASM Missouri Valley. Lincoln, Nebraska

2014

Hyoeun McDermott* and Kyoungtae Kim. Novel Physical Interaction of Vps1 with Major

Intracellular Traffic Regulators. 2014. *Arkansas InBre. Fayetteville, AK.*

Christopher Trousdale*, Katie Schmelzle**, Hyoeun McDermott*, and Kyoungtae Kim. Retrograde transport: Defining the Relationship and Recruitment of the Retromer Complex and Vps1 in Saccaromyces cerevisiae. 2014. *Arkansas InBre. Fayetteville, AK*

Bryan Banh*, Hyoeun McDermott*, Kumar Gadila*, and Kyoungtae Kim. Yeast Two-Hybrid Screen for VPS1 Protein Interactions. 2014. *Arkansas InBre. Fayetteville, AK*

Kumar Gadila*, Michelle Williams*, Hyoeun McDermott*, and Kyoungtae Kim. Assessment of Functional Relationship between *VPS1* and Clathrin. 2014. *Arkansas InBre. Fayetteville, AK*

Sara Woodman**, Katelyn Bartlett*, and Kyoungtae Kim. Examining Cytotoxicity and Gene Expression Effects of Carbon Nanotubes on Saccahromyces Cerevisiae. 2014. *Arkansas InBre. Fayetteville, AK*

Sara Woodman**, Hyoeun McDermott*, John short**, and Kyoungtae Kim. Effect of Fullerenols on Growth and Gene Expression in Saccharomyces cerevisiae. 2014. *Arkansas InBre. Fayetteville, AK*

Sara Woodman**, Katie Schmelzle*, Katelyn Bartlett*, and Kyoungtae Kim. Examining the Effect of Carbon Nanotubes on *Saccharomyces cerevisiae* Cell Growth and Gene Expression. 2014. 2014. CNAS symposium. (Second prize winner in undergrad student poster presentation).

HyoEun Ahn*, Michelle Williams*, and Kyoungtae Kim. Elucidation of Vps1 Action Mode via Its Physical Interactions. 2014. 2014. IDF. Missouri State Univ. (First prize winner in graduate student oral presentation).

Michelle Williams*, Hyoeun Ahn*, Courtney Hofstetter*, and Kyoungtae Kim. Yeast dynamin-like protein Vps1 functions with clathrin at the Golgi. 2014. IDF. Missouri State Univ. (received poster presentation award).

Katelyn Bartlett*, Brandon Tenay*, Brett Alcox**, and Kyoungtae Kim. TORC2 and eisosomes are spatially interdependent requiring optimal level of PIP2. 2014. IDF. Missouri State Univ.

Hyoeun Ahn** and Kyoungtae Kim. 2014. Elucidation of Vps1 action mode via its physical interaction. 2014. CNAS symposium. (First prize winner in undergrad poster presentation).

Hyoeun Ahn* , Michelle Williams*, and Kyoungtae Kim. Study of Vps1 Action Mode via Genetic and Physical Interactions. Missouri Branch of American society of microbiology. Apr 4-5, Kansas, MO. (First prize winner in graduate student oral presentation)

Shiva Kumar Goud Gadila*, Kyoungtae Kim. Assessment of Functional Connection Between ESCRT Proteins and Vps1 on Ste2-GFP Trafficking from Endosome to Vacuole. Missouri Branch of American society of microbiology. Apr 4-5, Kansas, MO.

Christopher R. Trousdale*, Katie Schmelzle*, Kyoungtae Kim. Retrograde Transport: Defining the Relationship and Recruitment of the Retromer Complex and Vps1 in *Saccharomyces cerevisiae.* Missouri Branch of American society of microbiology. Apr 4-5, Kansas, MO.

Sara Woodman**, Katie Schmelzle*, Katelyn Bartlett*, and Kyoungtae Kim. Examining Cytotoxicity of Carbon Nanotubes on *Saccharomyces cerevisiae.* Missouri Branch of American society of microbiology. Apr 4-5, Kansas, MO.

2013

Katie Schmelzle*, Brandon Tenay*, Joshua Lukehart*, Katelyn Bartlett*, Michelle Williams*, Courtney Hofstetter**, and Kyoungtae Kim. Tentative Functional Relationship between

Retromer and Vps1. *Arkansas InBre. Fayetteville, AK*

Michelle Williams*, Hyoeun Ahn**, Courtney Hofstetter**, and Kyoungtae Kim. A functional role for Dynamin-like protein Vps1 at the Golgi. *Arkansas InBre. Fayetteville, AK*

Katelyn Bartlett*, Brandon Tenay*, Erin Murphy*, Kyoungtae Kim. An Interdependent Relationship between Microdomains in the Plasma Membrane of Budding Yeast. *Arkansas InBre. Fayetteville, AK*

Hyoeun Ahn**, Michelle Williams*, and Kyoungtae Kim. Searching for Vps1 binding partners. *Arkansas InBre. Fayetteville, AK*

Brittany Stufflebeam*, Katelyn Bartlett*, Katie Schmelzle*, Kyoungtae Kim, and Paul Schweiger. Examination of the cytotoxicity of carbon nano tubes on Escherichia coli and Saccharomyces cerevisiae. *Arkansas InBre. Fayetteville, AK*

Joshua Lukehart* and Kyoungtae Kim. Recycling traffic passing Golgi requires functional VPS1 protein (IDF, poster presentation winner)

Brandon Tenay*, Evin Kimberlin**, Michelle Williams*, Juliette Denise**, Joshua Fakilahyel**, and Kyoungtae Kim. Inactivation of Tor proteins affects the dynamics of endocytic proteins in early stage of endocytosis (IDF)

Michelle Williams*, Hyoeun Ahn**, Courtney Hofstetter**, Jeff Sletto**, and Kyoungtae Kim. Potential Functional Connection Between Dynamin and the Coat Protein Clathrin (CNAS Symposium, First prize winner)

Katie Schmelzle**, Brandon Tenay*, Josh Lukehart*, and Dr. Kyoungtae Kim. Investigation of Vps1 for the assembly of retromer implicated in the pathology of Alzheimer's disease (CNAS Symposium)

Katelyn Bartlett*, Brandon Tenay*, Erin Murphy*, and Kyoungtae Kim. Reassessment of microdomains in budding yeast (First prize winner in graduate student oral presentation). Missouri Branch of American society of microbiology. March 22-23, 2012 .Columbia, MO.

Katie Schmelzle**, Brandon Tenay*, and Kyoungtae Kim. The functional cooperation between Vps1 and the retromer for endosome-to-Golgi recycling (First prize winner in undergraduate student oral presentation). Missouri Branch of American society of microbiology. March 22-23, 2012 .Columbia, MO.

Michelle Williams*, Hyoeun Ahn**, Jeff Sletto**, and Kyoungtae Kim. Vps1 at the trans Golgi Network and functions with clathrin (Second prize winner in undergraduate student oral presentation). Missouri Branch of American society of microbiology. March 22-23, 2012. Columbia, MO.

2012

Michelle Williams**, Ann Granich**, Jacob Hayden*, Joshua Lukehart*, Brandon Tenay*, Kyoungtae Kim. Vps1 in the traffic of endocytosed materials toward the vacuole. Arkansas InBre, Oct 5-6, 2012. Springdale, Arkansas

Tenay, Brandon*, Kimberlin, Evin**, Williams, Michelle**, Dennis, Juliette**, Fakilahyel, Josh**, Kim, Kyoungtae. Tor proteins are required for efficient endocytosis. Arkansas InBre, Oct 5-6, 2012. Springdale, Arkansas

Joshua Lukehart*, Chad Highfill*, and Kyoungtae Kim.Vps1, a Recycling Factor for the Traffic from Early Endosome to Golgi. Arkansas InBre, Oct 5-6, 2012. Springdale, Arkansas

Katelyn Bartlett*, Brandon Tenay*, Erin Murphy*, and Kyoungtae Kim. Spatial relationship between eisosome and a subdomain called MCT. Arkansas InBre, Oct 5-6, 2012. Springdale, Arkansas

Jacob Hayden*, Chad Highfill*, Joshua Lukehart*, Brandon Tenay*, Sarah Dobard**, and Kyoungtae Kim. The membrane pinching-off protein, Vps1, on the cellular garbage disposal traffic. Missouri Academy of Science, April, 2012. Columbia, MO

Sukje Lee**, Erin Murphy*, Brandon Tenay*, Joshua Fakilahyel*, and Evin Kimberlin*, and Kyoungtae Kim. Optimal level of phosphatidylinositol 4, 5-bisphosphate is required for proper organization of the membrane compartment eisosome. April, 2012. CNAS undergraduate symposium, Missouri State University.

Kimberlin Evin**, Brandon Tenay*, and Fakilahyel Josh**, and Kim Kyoungtae. Tor protein kinases affect recruitments of endocytic proteins and endocytic scission efficiency. April, 2012. CNAS undergraduate symposium, Missouri State University.

Alexis Brummett**, Hyoeun Ahn**, Jacob Hayden*, Joshua Lukehart*, and Chad Highfill*, and Kyoungtae Kim. Vps1 localizes at cellular recycling and degradation centers. April, 2012. CNAS undergraduate symposium, Missouri State University.

Joshua Lukehart*, Chad Highfill*, and Kyoungtae Kim. A novel role for Vps1 in early endosome to Golgi trafficking. 2012. Missouri Branch of American society of microbiology, St. Joseph, MO.

Brandon Tenay*, Kimberlin Evin**, Fakilahyel Josh**, and Kim Kyoungtae. 2012. Survey novel roles of Tor protein kinases on endocytosis. Missouri Branch of American society of microbiology, St. Joseph, MO.

2011

Joseph Harvey*, Lifeng Dong, Kyoungtae Kim, Jacob Hayden*, Jianjie Wang. 2011. Uptake of single-walled carbon nanotubes conjugated with DNA by microvascular endothelial cells. Arkansas INBRE Research Conference, Fayetteville, Arkansas.

Jacob Hayden*, Chad Highfill*, Brandon Tenay*, Sarah Dobard**, Kyoungtae Kim. 2011. Localization of the dynamin-like protein Vps1 and its implication in endosomal trafficking. Arkansas INBRE Research Conference, Fayetteville, Arkansas.

Joshua Lukehart*, Jacob Hayden*, Chad Highfill*, and Kyoungtae Kim. 2011. Disruption of Snc1 recycling via Vps1 mutations and search for Vps1 binding partners in membrane recycling pathway. Arkansas INBRE Research Conference, Fayetteville, Arkansas.

Brandon Tenay*, Evin Kimberlin**, Fakilahyel Joshua**, Kyoungtae Kim. 2011. Tor proteins are required for the integrity of eisosome and endocytosis. Arkansas INBRE Research Conference, Fayetteville, Arkansas.

Elizabeth Kapustka*, Erin Murphy*, Brandon Tenay*, Fakilahyel Joshua**, Evin Kimberlin**, Kyoungtae Kim. 2011. Membrane lipids on the organization of eisosome and spatial relationship between eisosome and membrane compartments. Arkansas INBRE Research Conference, Fayetteville, Arkansas.

Jacob Hayden*, Chad Highfill*, Brandon Tenay**, Kyoungtae Kim. 2011. Vps1's role in endosomal trafficking. The Missouri branch of American Society of Microbiology Conference, St. Louis, MO.

Chad Highfill*, Joshua Lukehart**, Brandon Tenay**, and Kyoungtae Kim. 2011. Vacuolar sorting protein one is implicated in early endosome to Golgi trafficking. The Missouri branch of American Society of Microbiology Conference, St. Louis, MO.

Erin Murphy*, Elizabeth Kapustka*, Sukje Lee**, Douglas Gilliam**, and Kyoungtae Kim. 2011. Disruption of plasma membrane components affects eisosome organization. The Missouri branch of American Society of Microbiology Conference, St. Louis, MO.

Brandon Tenay**, Jeff Sletto**, Daobing Wang*, and Kyoungtae Kim. 2011. Yeast dynamin implicated in endocytic scission and the disassembly of endocytic component. CNAS undergraduate research symposium at MSU.

Joshua Lukehart**, Chad Highfill*, Jacob Hayden*, and Kyoungtae Kim. 2011. Vps1's involvement in protein recycling from early endosome to late Golgi. CNAS undergraduate research symposium at MSU.

2010

Erin Murphy*, Jacob Boxberger**, Robert Colvin**, Sukje Lee**, Fred Loor**, Geoffrey Zahn**, and Kyoungtae Kim. 2010. The Eisosome Protein Pil1 Plays a Role in the Recruitment of Endocytic Components via Regulating Membrane PIP_2 Levels. The American Society for Cell Biology, Philadelphia, PA

C. Kamble*, S. Jain*, E. Murphy**, K. Kim. 2010. Requirements of Slm proteins for proper eisosome organization, endocytic trafficking, and recycling. The American Society for Cell Biology, Philadelphia, PA

D. Wang*, C. Highfill*, K. Kim. 2010. 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 The American Society for Cell Biology, Philadelphia, PA

Daobing Wang*, Jeff Sletto**, Chad Highfill*, and Kyoungtae Kim. 2010. Yeast dynamin on receptor mediated endocytosis. Arkansas INBRE Research conference.

Chitra Kamble*, Sandhya Jain*, Erin Murphy**, and Kyoungtae Kim. 2010. The phosphoinositide binding Slm proteins implicated in eisosome organization and endocytic trafficking. Arkansas INBRE Research conference.

Erin Murphy*, Suk Je Lee**, Jacob Boxberger**, Robert Colvin**, Elizabeth Kapustka**, Douglas Gilliam**, and Kyoungtae Kim. 2010. Disruption of plasma membrane components affects eisosome localization. Arkansas INBRE Research conference.

Erin Murphy*, Jacob Boxberger**, Robert Colvin**, Suk Je Lee**, Fred Loor**, Geoffrey Zahn**, and Kyoungtae Kim. 2010. Pil1's Role on Regulating Membrane PIP_2 Levels. Arkansas INBRE Research conference.

Chad Highfill*, Chitra Kamble*, and Kyoungtae Kim. 2010. Potential proteins involved with Vps1 in recycling. Arkansas INBRE Research conference.

Chad Highfill** and Kyoungtae Kim. 2010. Perturbed endosome motility in vps1 mutants. National Academy of Science conference, MO.

Kamble Chitra*, Jain S*, Murphy E**, and Kim K. 2010. Implication of *SLM* Genes in endocytosis and the organization of eisosome. American Society of Microbiology Conference, Springfield, MO.

Berg Christopher* and Kim, K. 2010. The Functional Synergy between Yeast Dynamin and Key Membrane Recycling Factors. American Society of Microbiology Conference, Springfield, MO.

Wang Daobing* and K. Kim. 2010. The C-terminal GTPase effector domain of yeast dynamin plays an important role in early endocytosis and interacts genetically with amphiphysin. American Society of Microbiology Conference, Springfield, MO.

Murphy, E.*, Boxberger, J.**, Zahn, G.**, Loor, F.**, and Kim, K. 2010. Loss of Pil1 Disrupts Cell-eating Ability. American Society of Microbiology Conference, Springfield, MO.

Chad Highfill** and Kyoungtae Kim. 2010. Perturbed endosome motility in vps1 mutants.

CNAS undergraduate research symposium at MSU.

Jeff Sletto**, Daobing Wang*, and Kyoungtae Kim: Genetic interaction between Vps1 and Chc1 genes investigated by tetrad analysis. 2010. CNAS undergraduate research symposium at MSU.

Jacob Boxberger**, Fred Loor**, Geoffrey Zahn**, Erin Murphy*, and Kyoungtae Kim. 2010. Cell eating disorder by loss of Pil1. CNAS undergraduate research symposium at MSU

2009

Erin Murphy**, Sandhya Jain*, and Kyoungtae Kim. 2009. The role of Pil1 and Slm1 targeting to the eisosome and its interaction with Slm1. Missouri Branch of American Society for Microbiology & Midwest Microbiology Educators joint meeting. Columbia, MO.

Daobing Wang*, Blake Schroeder**, and Kyoungtae Kim. 2009. The yeast dynamin and its role in early endocytosis. Missouri Branch of American Society for Microbiology & Midwest Microbiology Educators joint meeting. March 27-28, 2009. Columbia, MO.

Sandhya Jain*, Erin Murphy**, and Kyoungtae Kim. 2009. Characterizing the role of Slm1 in endocytosis. Missouri Branch of American Society for Microbiology & Midwest Microbiology Educators joint meeting. March 27-28, 2009. Columbia, MO.

Chitra Kamble*, Sandhya Jain*, Christopher Berg*, and K. Kim. 2009. Roles of Slm1 proteins in endosytosis. Arkansas IDeA Network of Biomedical Research Excellence (InBRE), Arkansas University, AK

Erin Murphy*, Geoffrey Zahn**, and K. Kim. 2009. Endocytic roles of Pil1, the main organizer of eisosomes. Arkansas IDeA Network of Biomedical Research Excellence (InBRE), Arkansas University, AK

Daobing Wang* and K Kim. 2009. The yeast dynamin and its roles in early endocytosis. Arkansas IDeA Network of Biomedical Research Excellence (InBRE), Arkansas University, AK

2008

Srikant Nannapaneni*, Blake Schroeder**, Adam Maysent**, Sandhya Jain*, Daobing Wang*, Delilah Pittsley**, Lindsay Reustle**, and K. Kim. 2008. The Yeast Dynamin-related protein Vps1 Function in Endocytic Vesicle Assembly and Internalization. American Society of Cell Biology. San Francisco, CA.

Sandhya Jain*, Srikant Nannapaneni*, Ryan McDowell**, Chad Highfill**, Erin Murphy**, Delilah Pittsley**, and Kyoungtae Kim. 2008. The effect of Vps1 loss on the intracellular motility of membrane-derived endocytic vesicles. American Society of Cell Biology. San Francisco, CA.

Blake Schroeder**, Adam Maysent**, Daobing Wang*, Delilah Pittsley**, Lindsay Reustle**, and K. Kim. 2008. The yeast dynamin-related protein Vps1p functions in endocytic patch assembly/maturation and internalization. Arkansas IDeA Network of Biomedical Research Excellence (InBRE), Arkansas University, AK

Srikant Nannapaneni* and Kyoungtae Kim. 2008. The Yeast Dynamin-related protein Vps1 Function in Endocytic Vesicle Assembly and Internalization. Interdisciplinary Forum at MSU.

2007

Srikant Nannapaneni* and Kyoungtae Kim. 2007. The role of Vps1p during endocytosis in

Saccharomyces cerevisiae. American Society of Cell Biology. Washington D.C.

2006

Kyoungtae Kim, Michelle E. McCully, Nandini Bhattacharya, Boyd Butler, David Sept and John A. Cooper. 2006. Structure/Function Analysis of the Interaction of Phosphatidylinositol-4,5-bisphosphate (PIP2) with Actin Capping Protein. American Society of Cell Biology, San Diego.

Kyoungtae Kim. 2006. Actin Capping Protein: Biochemical mechanism of capping actin and biological role in actin dynamics in yeast at MSU

PRESENTATIONS before employment at MSU:

Kyoungtae Kim, A. Yamashita, M. A. Wear, Y. Maeda, J. A. Cooper. 2004. Capping Protein Binding to Actin in Yeast: Biochemical Mechanism and Physiological Relevance. FEBS Special Cytoskeleton Meeting. Helsinki, Finland.

M. A. Wear, A. Yamashita, K. Kim, Y. Maeda, J. A. Cooper. 2003. How Capping Protein Binds the Barbed End of the Actin Filament. American Society of Cell Biology. SF.

Kyoungtae Kim, P. Hou, J. L. Gorski, J. A. Cooper. 2002. Effect of Fgd1 on Cortactin in Actin Polymerization. American Society of Cell Biology. SF.

R. J. Chi, K. Kim, S. G. Olenych, T. C. Keller. 2002. Smitin, a Titin-like Component of the Smooth Muscle Contractile Apparatus, Interacts with α-actinin. American Society of Cell Biology. SF.

Kyoungtae Kim and Tom Keller. 2000. Smooth Muscle Titin Localization and Interaction with Myosin II and α-actinin. American Society of Cell Biology. SF.

Kyoungtae Kim and Tom Keller. 1999. Smooth Muscle Titin Interaction with Myosin II and Localization *in vivo*. American Society of Cell Biology. WA.D.C

Kyoungtae Kim and Tom Keller. 1998. Smooth Muscle Titin Identification and Interaction with Myosin. American Society of Cell Biology. SF. CA

Editorial and Review Activities (since 2017)

- CdTe-QDs trigger M1 polarization in macrophages through mTOR-TFEB activation (2024 January)-Nanoimpacts (IF of 5).
- Thymosin β4 regulates the differentiation of thymocytes by controlling the cytoskeletal rearrangement and mitochondrial transfer of thymus epithelial cells (January 2024): MDPI
- Invited reviewer, "Tumor-associated macrophages derived DOCK7-enriched extracellular vesicles drive tumor metastasis in colorectal cancer via the RAC1/ABCA1 axis". "clinical and Translational Medicine, November 25 (IF of 12)
- Invited reviewer, A review: In vivo toxicity of quantum dots on targeted organs in animals, Journal of Hazardous Materials advances, July 28.
- Invited reviewer, "Isolation and detection of exosomal mir210 using carbon nanomaterial-coated magnetic beads", July 2023. Journal of Functional Biomaterials.
- Invited reviewer, "Transcriptome research on differentially expressed genes in a thermotolerant yeast strain from *Daqu* of Luzhou-flavor liquors", July 2023, International Journal of Food Properties.
- Invited reviewer, "Anti-metastatic Drug Development, Overview and Perspectives", May 2023. Bentham Science.
- Invited reviewer, "Features of copper and gold nanoparticles translocation in Petroselinum crispum segments". May 2023, Nanomaterials.

- Invited reviewer, “Invited reviewer, “Naringenin Induced HepG2 Cells Apoptosis through 2 ROS-Mediated JAK-2/STAT-3 Signaling Pathways”, May 2023, Nanomaterials.
- Invited reviewer, “Naringenin Induced HepG2 Cells Apoptosis through 2 ROS-Mediated JAK-2/STAT-3 Signaling Pathways”, April 2023, Biomolecules.
- Invited reviewer, “Effect of metal nanomaterials on cell energy metabolism under the sublethal concentration”, March 2023, Toxics.
- Invited reviewer, “Exposure to Cadmium Telluride Quantum Dots and Gene Expression Profile of Huh-7 Hepatocellular Carcinoma Cell Line”, March 2023. Dose-Response.
- Invited reviewer, “OBHS-remodeled Abnormal Glycometabolism Exerts Anti-cancer Effect via the Akt/mTOR-GLUT1 Pathway in Breast Cancer”, March 2023. IJMS.
- Invited MS reviewer, “Quantum Dots: Opportunities & Challenges in Cancer Therapy’. February 2023 (Pharmaceutics)
- Invited MS reviewer, “Effect of CdSTe QDs crystal size on viability and cytochrome P450 activity of CHO-K1 and HEP-G2 cells’. January 2023 (Micro)
- Invited MS reviewer, “Cerium Oxide Nanoparticles, Physical and Chemical Properties, Applications and Toxicological Implications: A review”. January 2023 (*Current Nanoscience*)
- Invited MS reviewer, “A Novel Perspective of Quantum Dots in Biotechnology: An Absolute Review”. January 2023 (*Biotechnology and Genetic Engineering Reviews*)
- Invited MS reviewer, “Chemical element mixtures and kidney function in mining and non-mining settings in northern Colombia”. January 2023 (*International Journal of Environmental Research and Public Health*)
- Invited MS reviewer, “Green synthesis, characterization, and biomedical applications of Cu/CuO nanoparticles of Plant Origin”. December 2022 (Current Drug Therapy)
- Invited MS reviewer, “Resubmitted- Improving Crossing of Multiple Bio-delivery Barriers By a Novel Bio-interface Design Based On Hydrophobic Nanoparticle Surface”. December 2022
- Invited MS reviewer, “Fungal Hal3 (and Cab3) as moonlighting proteins”. October 2022, J of Fungi.
- Invited MS reviewer, “Improving Crossing of Multiple Bio-delivery Barriers By a Novel Bio-interface Design Based On Hydrophobic Nanoparticle Surface”. September 2022, J of Materials Chemistry B.
- Invited MS Reviewer, “Investigation of signaling pathways-induced by pegylated diethylaminoethyl-chitosan nanoparticles: are TLR-4 and C-type lectin receptors involved?, Nanomaterials (Aug 2022)
- Invited Manuscript Reviewer, “Metabolic alteration of Tetrahymena thermophila exposed to CdSe/ZnS quantum dots to respond to oxidative stress and lipid damage”, BBA (July 2022)
- Invited Manuscript Reviewer, “The binding ability of Mercury (Hg) to Photosystem I and II explained the difference of its toxicity to the two photosystems”, MDPI-Toxics (June 2022)
- Invited Manuscript Reviewer, "Cadmium sulfide quantum dots adversely affect gametogenesis 2 in Saccharomyces cerevisiae," Nanomaterials, International, Papers. (June 2022).
- Invited Manuscript Reviewer, "Pectinases secretion by Saccharomyces cerevisiae: optimization in solid state fermentation and identification by shotgun proteomics approach," MDPI-Biomolecules, International, Papers. (May 2022).
- Invited Manuscript Reviewer, "Free-Standing Liquid Membranes as a Non-Fouling Filter for the Removal of Micro-Plastics from Water," LOGOS, Regional, Papers, Elected. (April 2022 - Present).
- Ad Hoc Reviewer, "Development of a Simple Shear Impact Device for Evaluating Cellular Traumatic Brain Injury," Midwestern Association of Graduate School (MAGS) Thesis Reviewer, Regional, Appointed. (2021).
- Invited Manuscript Reviewer, "When virus meets retromer," Frontiers in Microbiology, section Virology, International, Papers. (October 2021).
- Invited Manuscript Reviewer, "Exocytosis, endocytosis and recycling of secretory vesicles in neuroendocrine cells, and its regulation by cortical actin” contains two main topics, actin filament roles in endocytic and exocytic processes," International, Papers, Appointed. (September 2021).
- Invited Manuscript Reviewer, "From Microspikes to Stress Fibers: Actin Remodeling in Breast Acini Drives Myosin II-Mediated Basement Membrane Invasion," Cells-MDPI, International, Papers. (July 2021).
- Invited Manuscript Reviewer, "Development of a Simple Shear Impact Device for Evaluating Cellular Traumatic Brain Injury," MAGS, Regional, Papers. (June 2021).
- MAGS Outstanding thesis review
- Invited Manuscript Reviewer, "Actin Binding Protein nPIST Regulates Golgi Integrity," Experimental Cell Research, International, Papers, Appointed. (March 2021).

- Invited Manuscript Reviewer, "Apoptosis and Cell Cycle Analysis of Human Cancer Cell Lines MCF7, LS-174T and HePG2 in Response to Methanolic and Butanolic Extracts of Prosopis juliflora Leaf Tissue," MDPI-Biomolecules, International, Papers, Appointed. (March 2021).
- Invited Manuscript Reviewer, "CdSe Quantum Dots in human models derived from ALS patients: characterization, nuclear penetration studies and multiplexing," MDPI-Nanomaterials, International, Papers. (February 2021).
- Invited Manuscript Reviewer, "Cytotoxicity and transcriptome changes triggered by CuInS2/ZnS quantum dots in human glial cells," International, Papers. (February 2021).
- "ELE 438 Virtual Exchange: Teaching for Global Understanding," the GREAT program Advisory Board, Local, Grant Proposals. (February 2021).
- Invited Manuscript Reviewer, "revised-Essential role of the endocytic site-associated protein Ecm25 in stress-induced cell elongation," Cell Reports, International, Papers. (February 2021).
- Invited Manuscript Reviewer, "VPS34 Regulates Dynamin to Determine Endocytosis of Mitochondria-targeted Zinc Oxide Nanoparticles in Human Osteosarcoma Cell," Journal of Materials Chemistry B, International, Papers. (February 2021).
- Invited Manuscript Reviewer, "Antifungal activity of Capridine b as a consequence of its biotransformation into metabolite affecting yeast topoisomerase II activity," Pathogens (MDPI), International, Papers. (January 2021).
- Invited Manuscript Reviewer, "Revised-Transcriptome analysis and expression profiling of molecular responses to Cd toxicity in *Morchella spongiola*," FEMS Microbiology letters, Papers. (January 2021).
- Invited Manuscript Reviewer, "Effects of DNA-binding and forkhead-associated domains of Fkh1 and Fkh2 on nuclear localization, genetic interaction with Ndd1, yeast cell morphology and transcription of their own genes," International, Papers. (2020).
- Invited Manuscript Reviewer, "REVISITING THE CLINICAL USEFULNESS OF C-REACTIVE PROTEIN IN THE SET OF CANCER CACHEXIA," International, Papers. (2020).
- Invited Manuscript Reviewer, "Enhanced Immune Response by Vacuoles isolated from Saccharomyces cerevisiae in RAW 264.7 Macrophages," MDPI, International, Papers. (November 2020).
- Invited Manuscript Reviewer, "Transcriptome analysis and expression profiling of molecular responses to Cd toxicity in Morchella spongiola," International, Papers. (November 2020).
- Invited Manuscript Reviewer, "The N-terminal region of yeast protein phosphatase 3 Ppz1 is a determinant for toxicity," International, Papers. (September 2020).
- Invited Manuscript Reviewer, "Non-muscle Myosin 2A (NM2A): Structure, Regulation and Function," MDPI, International, Papers, Appointed. (May 2020).
- Invited Manuscript Reviewer, "UV-C LIGHT EXPOSURE AS A POSSIBLE TREATMENT METHOD AGAINST PSEUDOGYMNOASCUS DESTRUCTANS ON SUSCEPTIBLE BAT SPECIES," MISSOURI STATE UNIVERSITY, Local, Papers, Appointed. (May 2020).
- Invited Manuscript Reviewer, "Essential role of the endocytic site-associated protein Ecm25 in stress-induced cell shape change," Cell Reports, International, Papers, Appointed. (April 2020).
- Ad Hoc Reviewer, "RNA-Seq and pathway analyses reveals mechanistic insights into the inhibitory action of silver nanoparticles on Phytophthora parasitica.," BMC, International, Papers, Appointed. (April 2020).
- Ad Hoc Reviewer, "Sphingolipid-enriched domains and membrane compartments in yeast: role of mannosyldiinositolphosphorylceramide," MDPI, International, Papers, Appointed. (April 2020).
- Ad Hoc Reviewer, "Acidic-basic properties of arginine-rich peptide fragments derived from human Pin1 protein," MDPI, International, Papers, Appointed. (January 2020).
- Invited Manuscript Reviewer, "GARP, a Putative Potential Molecule in Tumor Immunosuppressive Environment," Journal of Cancer Treatment and Diagnosis, International. (2019).
- Invited Manuscript Reviewer, "Interaction of a polyarginine peptide with membranes 2 of different mechanical properties.," MDPI, International. (2019).
- Invited Manuscript Reviewer, "Mutation of key lysine residues in the insert B region of the yeast dynamin Vps1 disrupts lipid binding and causes defects in endocytosis," PLOS ONE, International, Papers. (2019).
- Invited Manuscript Reviewer, "Role of MCC/eisosome in fungal lipid homeostasis," MDPI, International. (2019).
- Invited Manuscript Reviewer, "Distinct mechanisms enable inward or outward budding from late endosomes/multivesicular bodies," Experimental Cell Research, International. (2018).
- Invited Manuscript Reviewer, "Live-cell imaging of early coat protein dynamics during clathrin-mediated endocytosis," BBA, International. (2018).
- Invited Manuscript Reviewer, "SIMPLE binds specifically to PI4P through SIMPLE-like domain and participates in protein trafficking at trans-Golgi network and/or recycling endosomes," PLOS, International. (2018).
- Invited Manuscript Reviewer, "Two eisosome proteins play opposite roles in autophagic control and sustain cell integrity, function and pathogenicity," Environmental Microbiology and Environmental Microbiology Reports, International. (2017).

INTERVIEWS

- **The Standard News (MSU Journal), "Everyday cells can become cancerous" (2022)**
- The Standard News (MSU Journal), "New Jersey high school students develop rare brain tumor" (2022)

PUBLIC PRESENTATIONS:

2007. Cell Structure and Function. The ELI (English Language Institute) at MSU.
2008. Cancer cell. The ELI (English Language Institute) at MSU.
2009. Fighting Cancer. The ELI (English Language Institute) at MSU
2020. Graduate education at MSU. Membrane trafficking (April 2, 2020)

OFF-CAMPUS PROFESSIONAL DEVELOPMENT

2020 Watermark seminar on "How to accelerate faculty activity reporting": July 30.
2020 Handshake Virtual Career Fair Launch Webinar: August 6
2021 2021 MAGS Conference (New Graduate Administrators workshop), (what comes next? Graduate Education for a Post-Pandemic World)

OFF-CAMPUS TEACHING WORKSHOP:

2007. McGraw-Hill Biology San Diego Symposium, held Oct 25-28. Non-Major Biology Instructor Conference.
2008. AACU (Association of American Colleges and Universities) meeting. "Engaging Science, Advancing Learning" Conference, held November 6-8.
2016 American Society for Cell Biology Cancer Door Meeting, San Francisco, 2016
2017. The NPSMA (National Professional Science Master Association) conference, Phoenix, AZ (Nov 7-10).
2018. NPSMA Webinar: Engaging academic to PSM programs (Jan 25, 2018)
2018. NPSMA Webinar: Engaging small businesses to PSM (Feb, 2018)
2018. The NPSMA (National Professional Science Master Association) conference, Arlington, VA (Nov 7-9).
2018 CCAS 2018 Annual Meeting, Chicago, IL (November 14-17).
2019 the 2019 ERN (Emerging Researchers National) conference, Washington DC (Feb 21-23).
2019 MOLSAMP Missouri STEM workshop (Jefferson city, MO)
2019. The NPSMA (National Professional Science Master Association) conference, Salt Lake city, Utah (Nov 6-8).
2019. STEM Institute for Improving Student Engagement and outcomes
2020. the 2020 ERN (Emerging Researchers National) conference, Washington DC (Feb 6-8).
2020 Handshake Career EXPO Webinar on " The next Generation Virtual Fair" (May 6, 2020)
2020 MSU online Boot camp (May 4-May15)
2020 ForagerOne-CNAS virtual Research Symposium Workshop (June 11, 2020)
2020 The next generation virtual fair: product demonstration: June 18, 2020
2020 Discussion for Chairs & Heads: STEM Disciplines in the time of COVID-19 and Planning for Fall
2020 Anti-racism messaging for colleges (June 30)-CCAS, leadership training.
2020 Discussion for Associate & Assistant Deans, Planning for Fall (July 9)-CCAS,

leadership training
2020 Teaching loads in the time of Covid-19, CCAS
2021 Mizzou Medicine-MSU Premed Committee
2021 Ask NPSMA: Long-Term Lessons learned from remote learning
2021 MAGS Conference: New Graduate Administrators Workshop (March 24-26)
2021 Media and Assessments for cell biology in MacMillan's Achieve Platform (August 3, 2021)

OFF-CAMPUS GRANT WRITING WORKSHOP:
2007. National Scientific Foundation, Oklahoma City, held March 19-20. Discussion of NSF proposal and award policies and procedures.
2021. Mid-Scale Research Infrastructure (MID-scale RI-2) grant workshop

ON-CAMPUS TEACHING WORKSHOP:
2016. 31st Showcase on Teaching and Learning
2018. 33rd Showcase on Teaching and Learning
2019. MOLSAMP Graduate School workshop-Served as a Panelist
2019. Handshake Job Search Portal Session Organizer
2019. Teaching class-Scale up workshop
2019. SGA& the Honors College-Undergraduate Research Fair-Faculty Panelist
2019. 34th Showcase on Teaching and Learning
2019. Agilent Rep Visit-Job Market trend: organizer
2020. STEM Employer Panel: organizer and moderator
2020. GREAT (Globally Responsive Education and Teaching Program) panelist: Understanding International Students
2020. GREAT Panel discussion on global Online Teaching, Panelist. (May 11-16): production of 10 videos.
2020. Online Boot Camp (May 4-May 15, 2020)
2020. 35th Showcase on Teaching and Learning - Virtual Event (August 12)
2020. Introduction to Zoom classroom (in person) in TEM 143 (August 13)
2021. Tenue and Promotion guide for Assistant Professor
2021. The 1921 Tulsa Race Massacre: Lessons and Legacies
2021. Facing Racism Training (May 7)
2021. PSM advisory board meeting (Nov 3)
2021. The GREAT teaching conference (Nov 19): moderator for a session
2022. 37th Showcase on Teaching and Learning (August 17)
2022. 2nd GREAT (Globally Responsive Education and Teaching Program) conference
2022. PSM advisory board meeting (Nov 9)
2023. 38th Showcase on Teaching and Learning (August 16)
2023. Public Affairs Conference (The very real implications of AI Chatbots): Diego Senior

SERVICE:
All leadership positions are underlined (29 times, including committee chair positions and program director)

COMMITTEES:

A. Department
   1. Microbiology Visiting Assistant Professor Search Committee (2023)
   2. Academic Administrative Assistant III search committee **Chair** (2023)
   3. Developmental Biologist Search Committee **Chair** (2021-2022)
   4. CNAS Atwood Award nomination committee **Chair** (2021-2022)
   5. Temple BIO Equipment Room (Room 262) Maintenance Committee **Chair** (2018-present)
   6. Departmental the Micro/Biotech curriculum committee **Chair** (2013-present)
   7. Graduate Committee, 2007-Present
   8. 3+1 program with Hainan Normal University: participant (2021-present)
   9. Faculty personnel committee, 2012, 2016, 2019-present
   10. Invite BIO seminar speaker (2022, 2023)
   11. Geneticist Search Committee, 2009-2010
   12. Departmental Equipment Committee, 2009 and 2017
   13. Faculty Compensation Evaluation Committee, 2010, 2017, 2018
   14. Course time change committee (Sep 2013)
   15. Developmental Biology Search Committee **Chair**, 2013-2014
   16. Microbiology/immunology visiting professor search committee, 2014.
   17. Microbiologist Search Committee, 2016-2017
   18. Genetics Post-doctoral Search Committee, 2019
   19. Microbiology Instructor Search Committee, 2019

B. College
   1. Science Research Advisory Board, 2023-present
   2. CNAS Personal Committee, 2019-present
   3. CNAS Equity and Inclusion Group, 2020
   4. CNAS Master Plan/Space Executive Committee, 2019-2020
   5. MNAS (Master of Natural and Applied Science)-**BIO coordinator** (2017-2019, 2021-2023)
   6. MNAS **Director** (2018-2021)
   7. CNAS Undergraduate Research Symposium organization (2017-2021)
   8. Undergraduate Research Activity Day CNAS Committee (2010-2012)
   9. CNAS Budget Committee (2015-2018)
   10. PSM (Profession Science Masters) track **Director** (2017-2021)
   11. PSM Executive Committee (2017-2021)
   12. CNAS Associate Dean search **Chair** (2018-2019)
   13. CNAS Administrative Assistant II Search Committee (2019)
   14. HHMI IE3 Grant preparation committee:2019-2020
   15. 3M Thesis organization work with CNAS Dean (2017-2020)
   16. CNAS STEM Career EXPO Organization Committee (2017-2020)
   17. CNAS Student Scholarship Committee, 2020-2021

C. University
   1. Faculty Research Focus Group (2023- present)
   2. Realignment Working Group: Pre-Med/Health (2023-present)
   3. AD hoc Committee on thesis Issues (2022-2023)
   4. Faculty **Advisory Board** for the GREAT program, 2020-present
   5. English Proficiency Exam Committee, 2006-present

6. Faculty Concerns Committee, 2007- 2015
7. **Pre-dental Advisor**, 2007-Present
8. Pre-medical Committee, 2011-present
9. Graduate Council Committee, 2016-2018
10. Graduate Council Executive Committee, 2016-2018
11. Graduate Council Scholarship Selection Committee **Chair**, 2016-2018
12. Premed Scholarship Committee (2016-present)
13. Foundation Scholarship Committee (2016-present)
14. Institutional Biosafety Committee **Chair** (2017-Present)
15. Career Center CAS Internal Review Committee (2018-2019)
16. MoLSAMP **grant program advisor** (2018-2022)
17. Future Professional Doctorate Committee (2019-2020)
18. Digital Measure Committee (2017-2021): CNAS Digital Measure Representative (2017-2021)
19. MSU-Advance Catalyst Project to Promote Gender Equity (2020)
20. Search Committee for Career Resources Specialist (2020-2121)

OTHER:

A. Departmental
   1. Department Head (2024-present)
   2. Interim Department Head (August, 2023-2024)
   3. **Assistant Departmental Head** (2021-2023)
   4. Management officer for Day Ligon's Grant (2019-2023)
   5. Major Fair Representative, 2006-Present
   6. Graduate Program Representative, 2010
   7. Recruitment Fair Representative, 2007, 2019 (MoLSAMP)
   8. Graduate Student Recruitment Travel, 2007
   9. International Student Speaking Test Judge, 2007-2015
   10. Invite Katie Shannon for Departmental Seminar (March 2013)
       Invite Melanie Mormile for Departmental Seminar (March 2013)

B. University and Community
   1. Convoy of Hope (May 24, May 31, July 19, July 26, Aug9, Aug16 2022)
   2. Clean Green Springfield Event (May 8, 2021)
   3. CNAS Search Training with Dean Jahnke (October 2021)
   4. Conducting a Legal and Effective Search Briefing (October 2021)
   5. ATS-Hiring Approvers Training (October 2021)
   6. New Academic Administrators Training: 2019-2020
   7. **Provost Academic Leadership Program Training**: 2019-2020
   8. Professional Doctorate Committee, 2019-2020
   9. External reviewer for Faculty Tenure and Promotion, 2019-present (3 times so far)
   10. AAA (Academic Administrators Assembly) meetings:2017-2020
   11. **CNAS leadership meetings**: 2017-2021
   12. World Yeast Congress: **Organizing Committee**, 2018, Montreal, Canada.
   13. World Yeast Congress: **Session Chair**, May 14 2018. Montreal, Canada.
   14. Symposium on World Cell and Molecular Biology 2023: **Organizing Committee**.
   15. Guest Editor (2023): International Journal of Molecular Sciences

16. World Nano 2024: **Organizing committee** (2023-2024)
17. World Nano 2024: Session Chair (2023-2024)
18. 4th World Nanotechnology Conference: **Organizing Committee**, 2022.
19. Member of the editorial board of "international journal of research studies in bioscience (IJRSB)"
20. Editorial Board Member for Journal of Biochemistry and Molecular Biology Research
21. Editorial Board Member for Journal of Molecular Signaling Update
22. The Reviewer Panel of Current Molecular Medicine
23. Judge at Interdisciplinary Forum, 2007-Present
24. Judge at Ozark Science Fair, 2006-Present
25. Judge at American Society of Microbiology, 2007-2009. 2016.
26. Judge at the Arkansas INBRE conference (2021)
27. Judge at the ERN conference (2019-present)
28. Judge at the MOLSAMP conference (2019-present)
29. Judge at International Science and Engineering Fair (2019)
30. SGA Undergraduate Research Fair **Faculty Panelist** (2019)
31. Reviewer of textbook (Krogh 5th Edition), 2008, 2011, 2014.
    Reviewer of textbook (biology for the informed citizen 1st edition). 2013.
32. Reviewer of a manuscript submitted to the MSU Journal LOGOS, 2009
33. Reviewer of manuscripts submitted to peer-reviewed Journals, 2012-present.
34. Attended MSU Teaching Showcase, 2006-Present.
35. Attended Internal Grant Workshops
36. Master Advisor (renew every year)
37. RESPOND Certificate (2019)
38. Regular Graduate Program Director Meetings (2017-2021)
39. Attended Tenure/Promotion Workshops (2010, 2015, 2021)
40. Attended a seminar entitled " General perspectives and specific suggestions about a campus shooting case
41. Attended a seminar entitled "Best practices in mentoring faculty (Sep 2013)
42. Attended CNAS college council meeting (Nov 2013)
43. Attended Green-Dot Training (2016, 2017): CNAS.
44. **SOAR-Presentation** (2017-2020): every summer
45. Frequent Student tour (2017-2020): Admitted student day.
46. Attend SCALE UP workshop, 2019, Oct 29 (9-10:30 and 2-3:30): Jill Sibel from Virginia Tech

Professional References

1. Dr. Jorge L. Rebaza-Vasquez (JRebaza@MissouriState.edu): Associate Dean in the College of Natural and Applied Sciences
2. Dr. Paul Durham (PaulDurham@MissouriState.edu): Distinguished Professor in Biology Department

3. Peng Zhang (PengZhang@MissouriState.edu): Coordinator, Global Academic Partnership
4. Dr. Alicia Mathis (AliciaMathis@MissouriState.edu): Distinguished Professor in Biology Department
5. Dr. Julie J. Masterson (JulieMasterson@MissouriState.edu): Associate Provost and Dean of the Graduate College