

## **YUE-WERN HUANG, Ph.D.**

Professor, Department of Biological Sciences  
Associate Dean for Research and External Relations, College of Arts, Sciences, and  
Education

Director, S&T Center for Biomedical Research  
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### **EDUCATION AND TRAINING**

Postdoctoral Fellow Michigan State University (Advisor: Timothy R. Zacharewski)  
Study Area: Molecular Toxicology /Biochemistry

PhD University of Wisconsin-Madison (Advisor: William H. Karasov)  
Study Area: Zoology / Environmental Toxicology

MSc National Taiwan Normal University (Advisor: Kuang-Yang Lue)  
Study Area: Ecology

BA National Taiwan Normal University  
Study Area: Ecology

### **UNIVERSITY LEADERSHIP CREDENTIALS**

- Associate Dean for Research and External Relations, Missouri S&T College of Arts, Sciences, and Education (2023 January 1 – Current)
- Director, S&T Center for Biomedical Research (2023 July 1 – Current)
- Interim Director, S&T Center for Biomedical Research (2022 Sept. 1 – 2023 June 30)
- Associate Director, S&T Center for Biomedical Research (2021 Sept. 1 – 2022 August 31)
- Faculty Fellow to Vice Chancellor of Research & Innovation (2021 Fall – 2022 December)
- Faculty Fellow to Vice Chancellor of Research & Graduate Studies (2019 Fall – 2021 Summer)
- Chair, Missouri S&T Institutional Biosafety Committee (2019 – 2022 Fall)
- Co-founder and Committee Member, Missouri S&T Biomedical Engineering Minor Degree Program (2015 – Current)
- Chair, Missouri S&T Institutional Animal Care and Use Committee (2008 – 2022 Fall)

- Chair, Missouri S&T College of Arts, Sciences, and Business Tenure Track Promotion and Tenure Reviewing Committee (2018)
- Chair, Missouri S&T Sciences Area Promotion and Tenure Reviewing Committee (2016, 2017, 2018)
- Chair, Dept. Promotion and Tenure Reviewing Committee (2016, 2017)
- Interim Chair, Missouri S&T Dept. Biological Sciences (2015 – 2016)
- Chair, Missouri S&T Biological Sciences Graduate Program Committee (2008 – 2015)
- Founding Chair & Chair, Missouri S&T Department of Biological Sciences International Scholar Exchange Program (2009 – 2013)
- Chair, Missouri S&T Department of Biological Sciences Student Recruitment Committee (2008 – 2011)
- Certificate, the year-long 2014 Leadership Development Program, The University of Missouri System President's Academic Leadership Institute

## **WORK EXPERIENCE**

2023S – Current	Associate Dean for Research and External Relations, Missouri S&T College of Arts, Sciences, and Education
2012 – Current	Professor, Missouri S&T Department of Biological Sciences
2015 – 2016	Interim Chair and Professor, Missouri S&T Dept. Biological Sciences
2012 Fall	Sabbatical leave to the National Institute of Biomedical Imaging and Biological Engineering (NIBIB), NIH
2006 – 2012	Associate Professor, Department of Biological Sciences, Missouri University of Science and Technology (Missouri S&T; formerly UM-Rolla)
2000 – 2006	Assistant Professor, Department of Biological Sciences, University of Missouri-Rolla (UM-Rolla)
1998 – 2000	Research Associate, Department of Biochemistry, Michigan State University
1990 – 1992	Teaching Assistant, Department of Biology, National Taiwan Normal University
1988 – 1990	Military Service (mandatory), Taiwan
1987 – 1988	Clerk, Council of Agriculture, Executive Yuan, Taiwan
1985 – 1986	Dong-Shi Junior High School, Yun Lin County, Taiwan (student teacher)

## **AFFILIATION WITH UNIVERSITY CENTERS**

- Director, Center for Biomedical Research (CBR)
- Senior Investigator, Center for Research in Energy and Environment (CREE)

- Investigator, Center for Science, Technology, and Society
- Lead, Bio-X Constellation

### **ACADEMIC SOCIETY MEMBERSHIPS**

- Member, Society of Toxicology (SOT, Full Membership)
- Member, American Association for the Advancement of Science
- Associate Member, Washington University in St. Louis Siteman Cancer Center
- Member, Ellis Fischer Cancer Center, University of Missouri-Columbia
- Member, Society for Biomaterials (SFB)
- Member, Partnership for Undergraduate Life Sciences Education (PULSE)

### **CURRENT RESEARCH EMPHASES**

- Toxicity of electronic cigarettes, nanomaterials, polyaromatic hydrocarbons (e.g., PCBs, dioxins) and environmental hormone modulators such as pharmaceuticals, phytochemicals, and industrial chemicals on human and environmental health
- Evolution and behaviors of indoor bioaerosols
- Tissue regeneration: wound healing and bone regeneration
- Development of carrier platforms to deliver biologically active molecules *in vitro* and *in vivo* for basic science research and biomedical applications

### **HONORS, AWARDS, AND FELLOWSHIPS**

- 2020. Missouri S&T Outstanding Teaching Commendation
- 2010. Missouri S&T Faculty Research Award
- 2008. Missouri S&T Faculty Excellence Award (campus-wide; for outstanding teaching, research, and service contributions)
- 2008. Plenary Speaker. The 5<sup>th</sup> Life Science and Biotechnology Forum between Taiwan and China. Presentation title: “Nanotechnology: A Double-edged Sword”. Taipei, Taiwan
- 2006. Best Published Paper Award: selected by the International Journal of Toxicology and presented in the 28th Annual Meeting of the American College of Toxicology in Charlotte, NC, USA
- 2004. Plenary Speaker. Annual Society of Environmental Toxicology and Chemistry (SETAC) Ozark-Prairie Chapter Meeting (A joint meeting with the SETAC Midwest Chapter). Presentation title: “Searching for possible causes of the population decline in Ozark hellbenders.” La Crosse, WI, USA

- 1998. John Jefferson Davis Fund Summer Scholarship for Research Excellence, Dept. of Zoology of University of Wisconsin
- 1996. Sea Grant Institute Travel Support, University of Wisconsin Sea Grant Institute
- 1994. John Jefferson Davis Fund Travel Award, Dept. of Zoology of University of Wisconsin

## GRANT PROPOSALS PENDING

- 2024 – 2027. Therapeutic Platforms with Programmable Warming Pad and Bioactive Dressings for Prevention and Treatment of Cold Burds. PI: Ming Leu (35%); **co-PIs: Yue-Wern Huang** (20%), Fateme Fayyazbakhsh (15%), Vadym Mochalin (20%), and Richard Billow (10%). \$1,999,979, submitted to DOD Military Burn Research Program.
- 2024 – 2026. Secondhand Electronic Nicotine Delivery System (ENDS) Aerosols: Characterization and Toxicology. PI: **Yue-Wern Huang** (70%); co-PI: Yang Wang (30%). \$355,328, submitted to NIH R21.
- 2024 – 2029. Molecular delivery of ribonucleotide reductase R2 inhibitor combined with uPAR-mediated cellular uptake and tissue retention for triple-negative breast cancer therapy. Multi-PIs: Hu Yang (contact PI, 51%) & **Yue-Wern Huang** (PI, 49%). \$2,500,000, submitted to NIH R01.

## GRANTS AND CONTRACTS

Funding Agencies: National Science Foundation; National Institutes of Health; Military Research Laboratories; EPA Region 7; US Fish and Wildlife Service; US Geological Survey; US Army Research Laboratories; Missouri Department of Natural Resources; Missouri Department of Conservation; Saint Louis Zoo; Missouri Water Resources Research Center; Doe Run Company; UM-System Research Board; Missouri S&T research centers; S&T Chancellor's Committee on Diversity and Inclusion.

2022 – 2025. Characterizing the Physical, Chemical, and Toxicological Properties of Secondhand Aerosols Generated from Electronic Nicotine Delivery Systems in Indoor Environments. PI: Yang Wang (70%); **Co-PI: Yue-Wern Huang** (30%). NSF Project No. 2204659. \$420,000.

2022 – 2024. Chemical and Biological Hazards Mitigation Through Cold Plasma Treatment and Shielding. PI: Daoru Han (34%); **Co-PIs: Yue-Wern Huang** (33%) and Marek Locmelis (33%). U.S. Army Combat Capabilities Development Command (DEVCOM) Analysis Center (DAC). \$300,000.

2022 – 2023. Flexible Sensor for Detecting Infectious Respiratory Diseases Including COVID-19 and Flu. PI: Chenglin Wu (50%); Co-PIs: **Yue-Wern Huang** (20%), and DongHyun Kim (30%). NIH Midwest Biomedical Accelerator Consortium (MBArC). \$147,366.

2021 – 2022. Development of Targeted Drug Delivery Systems to Treat Breast Cancer. **PI: Yue-Wern Huang**; Co-PI: Hu Yang. The Missouri S&T Kummer College Ignition Grant Initiative. \$32,000.

- 2021 – 2022. AI and Nanomaterials Enabled Real-Time Dynamic Electro-Chemical Sensing and Analytic Systems. PI: Chenglin Wu; **Co-PIs:** Genda Chen, **Yue-Wern Huang**, Yang Wang, Donghyun Kim, Guang Xu, Joel G. Burken, Venkata Sriram Siddhardh Nadendla. The Missouri S&T Kummer College Ignition Grant Initiative. \$32,000.
- 2021 – 2022. uPAR-Targeted Nanomedicine for Triple Negative Breast Cancer Therapy. **Multiple PIs:** **Yue-Wern Huang**; Hu Yang; Kan Huang. The Ozark Biomedical Initiative. \$20,000.
- 2021 – 2022. Therapeutic Efficacy of Antioxidants in Treating Oxidative Damage Induced by Electronic Cigarette Aerosols. PI: Yang Wang; Co-PI: **Yue-Wern Huang**. S&T Center for Biomedical Research. \$10,000.
- 2020 – 2024. Understanding the Evolution of Bioaerosols in Indoor Environments. PI: Yang Wang (34%); **Co-PIs:** **Yue-Wern Huang** (33%) and Guang Xu (33%). NSF. Project No. 2034198. \$329,902.
- 2019 – 2020. DNA-Based Targeted Drug Delivery for Breast Cancer Therapy. Multiple PIs: Risheng Wang, Cheng Wang, **Yue-Wern Huang**. Missouri S&T Center for Biomedical Research. \$15,000.
- 2018 – 2019. Redesign Issues in Public Health (Biosci 2373) to Encompass Inclusion and Diversity. **PI:** **Yue-Wern Huang**. Missouri S&T Chancellor's Committee on Diversity and Inclusion. \$2,500.
- 2018 – 2019. Establishment of Whole Body Exposure Chambers and Effects of Jet Fuel Exhaust on Pulmonary Mechanics and Functions in Mice. **PI:** **Yue-Wern Huang**. Missouri S&T Center for Research in Energy and Environment. \$18,540.
- 2017 – 2018. A Novel High-Resolution, High-Content Whole Animal Spectral-Continuous Fiber Optic Fluorescence Imaging System for Cancer Detection. Missouri S&T Strategic Plan Advanced Manufacturing Cluster. **PI:** **Yue-Wern Huang**; Co-PI: Jie Huang. \$15,500.
- 2016 – 2017. Damage is More Sensitive to Growth than to Metabolism. PI: Chen Hou; **Co-PI:** **Yue-Wern Huang**. The University of Missouri System Research Board. \$51,463.
2016. Combination of Relaxin and Bone Morphogenetic Protein-2 to Induce Osteogenesis. **PI:** **Yue-Wern Huang**; Co-PI: Mohamed Rahaman. Missouri S&T Center for Biomedical Science and Engineering (CBSE). \$12,550.
- 2014 – 2017. Reduction of the BMP-2 Dose Required for Bone Regeneration through the Use of a New Intrinsically Osteoinductive Hydroxyapatite Carrier. PI: Mohamed N. Rahaman; **Co-PI:** **Yue-Wern Huang**. National Institute of Dental and Craniofacial Research, NIH. R15DE023987-01. \$365,420.
2014. Repair of Rat Femoral Segmental Defects Using Strong Porous Bioactive Glass Scaffolds. PI: Mohamed Rahaman; **Co-PIs:** **Yue-Wern Huang** and B. Sonny Bal (UM-Columbia). Missouri S&T Center for Biomedical Science and Engineering (CBSE). \$17,826.
- 2009 – 2011. Using Quantum Dots and Protein Transduction Domains to Analyze Cargo Dissociation, Uptake, and Localization in Live Cells. **PI:** **Yue-Wern Huang**. Co-PIs:

Jeffrey Winiarz and Katie Shannon. National Institute of Biomedical Imaging and Bioengineering, NIH. 1R15EB009530-01. \$225,750.

- 2007 – 2009. Evaluation of Health Conditions, Reproductive Hormones, and Contaminants in Hellbenders (*Cryptobranchus alleganiensis*): juveniles. **PIs: Yue-Wern Huang**, Jeff Briggler (MDC) and Mike McKee (MDC). Missouri Department of Conservation. \$63,980.
- 2006 – 2007. Evaluation of Health Conditions, Reproductive Hormones, and Contaminants in Adult Hellbenders (*Cryptobranchus alleganiensis*). **PIs: Yue-Wern Huang**, Jeff Briggler (MDC), and Mike McKee (MDC). Missouri Department of Conservation and the U.S. Department of the Interior Fish and Wildlife Service. \$35,760.
- 2003 – 2007. Estrogenic Compounds and Excess Nutrients in Little Medicine Creek and West Locust Creek. **PI: Yue-Wern Huang**; Co-PIs: Paul Nam, Dev Niyogi, and Roger Brown. U.S. EPA Region 7 and Missouri Department of Natural Resources. \$293,266.
- 2005 – 2006. Characterization and Biological Effect Study of Endocrine Disruptors in Indian Creek, Newton County, Missouri. **PI: Yue-Wern Huang**; Co-PI: Paul Nam. U.S. Geological Survey and Missouri Water Resources Research Center. \$22,000.
- 2003 – 2004. Biomarkers for Estrogenic Compounds and Health Indicator Analysis of the Missouri State Endangered Ozark Hellbenders (*Cryptobranchus alleganiensis bishopi*) in Eleven Point River and White River. Saint Louis Zoo. **PI: Yue-Wern Huang**. \$9,975.
- 2002 – 2004. Assessment of Estrogenic Compounds in Eleven Point River and White River in Missouri. Missouri Department of Conservation. **PI: Yue-Wern Huang**. \$2,000.
- 2002 – 2004. Identification of Estrogenic Chemicals in the Habitat of Ozark Hellbenders (*Cryptobranchus alleganiensis*) in two Missouri Rivers. **PI: Yue-Wern Huang**; Co-PIs: Paul Nam, Dev Niyogi. The U.S. Department of the Interior Fish and Wildlife Service. \$75,306.
- 2001 – 2002. Establishment of Bioassays for Endocrine Disruptors. **PI: Yue-Wern Huang**. University of Missouri Research Board. \$38,956.
- 2000 – 2001. Characterization and Biological Effect Study of Endocrine Disruptors in Effluents from Missouri Sewage Treatment Plants. **PI: Yue-Wern Huang**; Co-PI: Paul Nam. U.S. Geological Survey and Missouri Water Resources Research Center. \$22,000.
- 2000 – 2001. Determination of Concentrations of Heavy Metals in Fish and Sediments in the Big River and Flat River Creek of Missouri's Old Lead Belt. **PI: Nord Gale**; **Co-PIs: Yue-Wern Huang**, Craig Adams, and Bobby Wixson. The Doe Run Company, Viburnum, MO. \$53,493.

## **INVENTION DISCLOSURE AND PROVISION PATENT**

2023. Platform and Method for Treatment of Frostbite. Fateme Fayyazbakhsh, Ming Leu, Vadym Mochalin, and Yue-Wern Huang. (Invention Disclosure filed)
2022. A Simulated Respiratory System for Secondhand Smoke Generation. Yang Wang, Yue-Wern Huang, and Weixing Hao. (Provisional patent filed)

2022. Mxene-Graphene Field Effect Transistor Virus Sensor. Chenglin Wu, Yue-Wern Huang, Donghyun Kim, Cheng Wang, Yang, Wang, and Xiangyang Dong. (International Patent Application No. PCT/US22/41497; based on US Application No. 63/238,454)
2017. Bioactive Device to Reduce Postoperative Pain and Regenerate Bone. Sonny Bal, Mohamed N. Rahaman, Yue-Wern Huang, and Wei Xiao. (Invention Disclosure No. 18UMC010)

### PEER-REVIEWED JOURNAL PAPERS

1. 2024. Kolawole Adesina, Ta-Chun Lin, Yue-Wern Huang, Marek Locmelis, and Daoru Han. A review of dielectric barrier discharge cold atmospheric plasma for surface sterilization and decontamination. (IEEE Transactions on Radiation and Plasma Medical Sciences, 8(3), 295-306. <https://doi.org/10.1109/TRPMS.2024.3349571>).
2. 2024. Weixing Hao, Yue-Wern Huang, and Yang Wang. Bioaerosol size as a potential determinant of airborne *E. coli* viability under ultraviolet germicidal irradiation and ozone disinfection. *Nanotechnology*, 35, 145702, 12pp. <https://doi.org/10.1088/1361-6528/ad14b4>.
3. 2023. Yanxiao Li, Zhekun Peng, Jiaoli Li, Congjie Wei, Shangbin Liu, Huanyu Cheng, Casey Burton, Yang Wang, Yue-Wern Huang, DongHyun Kim and Chenglin Wu. Wearable MXene-graphene sensing of influenza and SARS-CoV-2 virus in air and breath: from lab to clinic. *Advanced Materials Technologies*, <https://doi.org/10.1002/admt.202201787>.
4. 2023. Fateme Fayyazbakhsh, Michael J. Khayat, Candy Sadler, Delbert Day, Yue-Wern Huang, Ming C. Leu. 3D-printed hydrogels dressings with bioactive borate glass for continuous hydration and treatment of second-degree burns. *International Journal of Bioprinting*, <https://doi.org/10.36922/ijb.0118>.
5. 2023. Betty Revon Liu, Yue-Wern Huang, and Han-Jung Lee. Cell-penetrating peptides for use in development of transgenic plants. *MDPI Molecules*, 28(8), 3367; <https://doi.org/10.3390/molecules28083367>.
6. 2022. Weixing Hao, Kashala Fabrice Kapiamba, Varuni Abhayaratne, Shoaib Usman, Yue-Wern Huang, and Yang Wang. A filter-based system mimicking the particle deposition and penetration in human respiratory system for secondhand smoke generation and characterization. *Inhalation Toxicology*, 34(7-8): 189-199.
7. 2022. Kashala Fabrice Kapiamba, Weixing Hao, Stephen Adom, Wenyan Liu, Yue-Wern Huang, and Yang Wang. Examining metals in primary and secondhand aerosols released by electronic cigarettes. *ACS Chemical Research in Toxicology*, 35(6): 954-962.
8. 2022. Meng-Jiun Lai, Yue-Wern Huang, Li-I Tsaoc, Hsuan-Chun Chena, Chih-Fang Chang Chienc, Bhaskar Singha, Betty Revon Liu. Effect of size and dose of copper nanoparticles on antimicrobial activity in *Escherichia coli* through multiple mechanisms. *Nanomaterials*, 12(21):3715. <https://doi.org/10.3390/nano12213715>.
9. 2022. Betty Revon Liu, Shiow-Her Chiou, Yue-Wern Huang, and Han-Jung Lee. Bio-membrane internalization mechanisms of arginine-rich cell-penetrating peptides in various species. *MDPI Membranes*, 12, 88. <https://doi.org/10.3390/membranes12010088>.

10. 2022. Xuesong Liu, Jianmin Wang, and Yue-Wern Huang. Understanding the role of nano-TiO<sub>2</sub> on the toxicity of Pb on *C. dubia* through modeling – is it additive or synergistic? *Frontiers of Environmental Science and Engineering*, 16(5): 59-70.
11. 2021. Natalie Holl, Han-Jung Lee, and Yue-Wern Huang. Evolutionary timeline of genetic delivery and gene therapy. *Current Gene Therapy*, 21(2):89-111.
12. 2021. Mallikarjuna Korivi, Yue-Wern Huang, and Betty R. Liu. Cell-penetrating peptides as a potential drug delivery system for effective treatment of diabetes. *Current Pharmaceutical Design*, 27(6): 816-825.
13. 2021. Yanxiao Li, Zhekun Peng, Natalie J. Holl, Md. Rifat Hassan, John M. Pappas, Congjie Wei, Omid Hoseini Izadi, Yang Wang, Xiangyang Dong, Cheng Wang, Yue-Wern Huang, DongHyun Kim, Chenglin Wu. MXene-graphene field effect transistor sensing influenza virus and SARS-CoV-2. *ACS Omega*, 6(10):6643-6653.
14. 2021. Xuesong Liu, Jianmin Wang, and Yue-Wern Huang. Quantifying the effect of nano-TiO<sub>2</sub> on the toxicity of lead on *C. dubia* using a two-compartment modeling approach. *Chemosphere*, 263:127958; doi:10.1016/j.chemosphere.2020.127958.
15. 2020. Yang Wang, Guang Xu, and Yue-Wern Huang. Modeling the load of SARS-CoV-2 virus in human expelled particles during coughing and speaking. *PLoS ONE*, 15(10): e0241539. <https://doi.org/10.1371/journal.pone.0241539>.
16. 2020. Melissa H. Cambre, Natalie J. Holl, Bolin Wang, Lucas Harper, Han-Jung Lee, Charles Chusuei, Ethan T. Williams, Jerry D. Argo, Raja Ram Pandey, Fang Yao Stephen Hou, and Yue-Wern Huang. Cytotoxicity of NiO and Ni(OH)<sub>2</sub> nanoparticles is mediated by oxidative stress-induced cell death and suppression of cell proliferation. *MDPI International Journal of Molecular Sciences*, 21(7), 2355; doi:10.3390/ijms21072355.
17. 2020. Larry M. Tolliver, Natalie J. Holl, Fang Yao Stephen Hou, Han-Jung Lee, Melissa H. Cambre, and Yue-Wern Huang. Differential cytotoxicity induced by transition metal oxide nanoparticles is a function of cell killing and suppression of cell proliferation. *MDPI International Journal of Molecular Sciences*, 21(5), 1731; doi:10.3390/ijms21051731.
18. 2020. Sahitya Injamuri, Mohamed Rahaman, Youqu Shen, and Yue-Wern Huang. Relaxin enhances bone regeneration with BMP-2 loaded hydroxyapatite microspheres. *Journal of Biomedical Materials Research Part A*, 108(5): 1231-1242; doi:10.1002/jbm.a.36897.
19. 2020. Krishna C. R. Kolan, Yue-Wern Huang, Julie Semon, Ming C. Leu. 3D-printed biomimetic bioactive glass scaffolds for bone regeneration in rat calvarial defects. *International Journal of Bioprinting*, 6(2):82-98. doi:10.18063/ijb.v6i2.274.
20. 2020. Noland Ferral, Nikki Gomez, Kyara Holloway, Haley Neeter, Megan Fairfield, Catherine Pollman, Yue-Wern Huang, and Chen Hou. The extremely low energy cost of biosynthesis in a *Holometabolous* insect species larvae. *Journal of Insect Physiology*, 120:103988; doi: 10.1016/j.jinsphys.2019.103988.
21. 2019. Han-Jung Lee, Yue-Wern Huang, Shiow-Her Chiou, Robert S. Aronstam. Polyhistidine facilitates direct membrane translocation of cell-penetrating peptides into cells. *Scientific Reports*, 9:9398; doi: 10.1038/s41598-019-45830-8.



22. 2019. Han-Jung lee, Yue-Wern Huang, and Robert Aronstam. Intracellular delivery of nanoparticles mediated by lactoferricin cell-penetrating peptides in an endocytic pathway. *Journal of Nanoscience and Nanotechnology*, 19(2):613-621; doi: 10.1166/jnn.2019.15751.
23. 2019. Xuesong Liu, Jiamin Wang, Yue-Wern Huang, and Tao Kong. Algae (*Raphidocelis*) reduce combined toxicity of nano-TiO<sub>2</sub> and lead on *C. Dubia*. *Science of the Total Environment*, 686:246-253.
24. 2017. Yue-Wern Huang, Melissa Cambre, and Han-Jung Lee. The toxicity of nanoparticles depends on multiple molecular and physicochemical mechanisms. *International Journal of Molecular Sciences* 18, 2702; doi:10.3390/ijms18122702.
25. 2017. Betty R. Liu, Yue-Wern Huang, Mallikarjuna Korivi, Shih-Yen Lo, Robert S. Aronstam, and Han-Jung Lee. The primary mechanism of cellular internalization for a short cell-penetrating peptide as a nano-scale delivery system. *Current Pharmaceutical Biotechnology*, 18(7):569-584.
26. 2017. Hsiu-Jen Wang, Yue-Wern Huang, Shakila Tobwala, Robert Aronstam, and Nuran Ercal. The role of N-acetylcysteine amide in defending primary human retinal pigment epithelial cells against tert-butyl hydroperoxide-induced oxidative stress. *Free Radicals and Antioxidants*, 7:172-177.
27. 2017. Tunyaboon Laemthong, Hannah H. Kim, Kelly Dunlap, Caitlin Brocker, Dipak Barua, Daniel Forciniti, Yue-Wern Huang, and Sutapa Barua. Bioresponsive polymer coating on targeted drug nanorods. *IOP Nanotechnology*, 28(4):045601.
28. 2016. Kaushalya Amunugama, Lihong Jiao, Kathryn Koerperich, Yue-wern Huang, Paul Nam, and Chen Hou. Cellular oxidative damage is more sensitive to biosynthetic rate than to metabolic rate: A test of the theoretical model on hornworms (*Manduca sexta* larvae). *Experimental Gerontology*, 82:73-80.
29. 2016. Betty R. Liu, Yue-Wern Huang, Robert S. Aronstam, and Han-Jung Lee. Identification of a short cell-penetrating peptide from bovine lactoferricin for intracellular delivery of DNA in human A549 cells. *PLOS ONE*, 4:11(3):e0150439. doi: 10.1371/journal.pone.0150439.
30. 2015. Betty R. Liu, Yue-Wern Huang, Robert S. Aronstam, and Han-Jung Lee. Comparative mechanisms of protein transduction mediated by cell-penetrating peptides in prokaryotes. *International Journal of Molecular Sciences. Journal of Membrane Biology*, 248(2):355-368. doi:10.1007/s00232-015-9777-x.
31. 2015. Yue-Wern Huang, Han-Jung Lee, Larry M. Tolliver, and Robert Aronstam. Delivery of nucleic acids and nanomaterials by cell-penetrating peptides: opportunities and challenges. *BioMed Research International. Special Issue "Advances in Gene Delivery Systems"*, volume 2015, article ID 834079, 16 pages. doi:10.1155/2015/834079.
32. 2015. Betty R. Liu, Hwei-Hsien Chen, Ming-Huan Chan, Yue-Wern Huang, Robert S. Aronstam, and Han-Jung Lee. Three arginine-rich cell-penetrating peptides facilitate cellular internalization of red-emitting quantum dots. *Journal of Nanoscience and Nanotechnology*, 15:2067-2078.

33. 2014. Microsugar Chang, Yue-Wern Huang, Robert S. Aronstam, and Han-Jung Lee. Cellular delivery of noncovalently-associated macromolecules by cell-penetrating peptides. *Current Pharmaceutical Biotechnology*, 15:267-275.
34. 2013. Charles C. Chusuei, Chi-Heng Wu, Shravan Mallavarapu, Jeffrey G. Winiarz, Jong-Sik Moon, Robert S. Aronstam, and Yue-Wern Huang. Cytotoxicity in the age of nano: cell toxicity reflects certain physiochemical properties of fourth period of metal oxide nanoparticles. *Chemico-Biological Interactions*, 206:319-326.
35. 2013. Betty R. Liu, Jeffrey G. Winiarz, Jong-Sik Moon, Shih-Yen Lo, Yue-Wern Huang, Robert S. Aronstam, Han-Jung Lee. Synthesis, characterization and applications of carboxylated and polyethylene-glycolated bifunctionalized InP/ZnS quantum dots in cellular internalization mediated by cell-penetrating peptides. *Colloids and Surfaces B: Biointerfaces*, 111:162-170. (Y. H. and H. L. are corresponding authors.)
36. 2013. Betty Revon Liu, Shih-Yen Lo, Chia-Chin Liu, Chia-Lin Chyan, Yue-Wern Huang, Robert S. Aronstam, Han-Jung Lee. Endocytic trafficking of quantum dots delivered by cell-penetrating peptides comprised of nona-arginine and a penetration accelerating sequence. doi:10.1371/journal.pone.0067100. *PLOS ONE* 8(6):e67100.
37. 2013. Betty Revon Liu, Ji-Sing Liou, Yue-Wern Huang, Robert S. Aronstam, Han-Jung Lee. Intracellular delivery of nanoparticles and DNAs by IR9 cell-penetrating peptides. doi:10.1371/journal.pone.0064205. *PLOS ONE* 8(5):e64205.
38. 2013. Ji-Sing Liou, Betty Revon Liu, Yung-Hen Che, Yue-Wern Huang, Han-Jung Lee. Delivery of nucleic acids, proteins, and nanoparticles by arginine-rich cell-penetrating peptides in rotifers. *Marine Biotechnology* doi:10.1007/s10126-013-9509-0.
39. 2013. Betty Revon Liu, Yue-Wern Huang, Huey-Jenn Chiang, and Han-Jung Lee. Mechanistic studies of intracellular delivery of proteins by arginine-rich cell-penetrating peptides in cyanobacteria. *BMC Microbiology*, 13:57. doi:10.1186/1471-2180-13-57. (Highly accessed)
40. 2013. Betty Revon Liu, Huey-Jenn Chiang, Yue-Wern Huang, Ming-Huan Chan, Hwei-Hsien Chen and Han-Jung Lee. Cellular internalization of quantum dots mediated by cell-penetrating peptides. *Pharmaceutical Nanotechnology*, 1(2):151-161.
41. 2013. Ninu Madria, Nanditha Nair, Avinash Vadapali, Yue-Wern Huang, Simon Jones, and V. Prakash Reddy. Ionic liquid electrolytes for lithium batteries: Synthesis, electrochemical, and cytotoxicity studies. *J. of Power Sources*, 234:277-284.
42. 2013. Hsiu-Jen Wang, Alexis Martin, Po-Kuan, Rhett Reichard, Adam L. Martin, Yue-Wern Huang, Ming-Huan Chan, and Robert S. Aronstam. Honokiol blocks store operated calcium entry in CHO cells expressing the M3 muscarinic receptor: honokiol and muscarinic signaling. *J. of Biomedical Science* 20:11. doi:10.1186/1423-0127-20-11. PMID: 23432810. *J. of Biomedical Science*, 20:11.
43. 2013. Tso-Hao Tang, Chiung-Tan Chang, Hsiu-Jen Wang, Joshua D. Erickson, Rhett A. Richard, Alexis G. Martin, Erica K. Shannon, Adam L. Martin, Yue-wern Huang, and Robert S. Aronstam. Oxidative stress disruption of receptor-mediated calcium signaling

- mechanisms. doi:10.1186/1423-0127-20-48. *Journal of Biomedical Science*, 20:48. (Highly accessed)
44. 2013. Betty R. Liu, Yue-Wern Huang, Huey-Jenn Chiang, and Han-Jung Lee. Primary effectors in the mechanisms of transmembrane delivery of arginine-rich cell-penetrating peptides. *Advanced Studies in Biology*, 5(1):11-25.
  45. 2012. Ji-Sing Liou, Betty Revon Liu, Adam Martin, Yue-Wern Huang, Huey-Jenn Chiang, and Han-Jung Lee. Protein transduction in human cells is enhanced by cell-penetrating peptides fused with an endosomolytic HA2 sequence. *Peptides*, 37:273-284. (Y. H. and H. L. are corresponding authors.)
  46. 2011. Cheng-Yi Lee, Jheng-Fong Li, Ji-Sing Liou, Yuh-Chyang Chang, Yue-Wern Huang, and Han-Jung Lee. A gene delivery system mediated by both a cell-penetrating peptide and a PiggBac transposase into human cells. PMID: 21636125. *Biomaterials*, 32:6264-6276.
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## BOOK CHAPTERS

1. 2021. Natalie J. Holl, Moumita Dey, Yue-Wern Huang, Shiow-Her Chiou, and Han-Jung Lee. Chapter 9: Lactoferricin-Derived L5a Cell-Penetrating Peptide for Delivery of DNA

- into Cells. In *Methods in Molecular Biology*. Kumaran Narayanan (ed.). Humana Press, New Jersey, pp 113-121.
2. 2019. Betty Revon Liu, Yue-Wern Huang, and Han-Jung Lee. Chapter 4: Efficient DNA Transfection in Protists Mediated by Cell-Penetrating Peptide. In *Gene Delivery: Methods and Applications*. Vanessa Zimmer (ed.). Nova Science Publisher, Hauppauge, New York, pp 165-185.
  3. 2019. Betty Revon Liu, Yue-Wern Huang, and Han-Jung Lee. Chapter 4: Hypotoxic Fluorescent Nanoparticles Delivery by Cell-Penetrating Peptides in Multiple Organisms: from Prokaryotes to Mammalian Cells. In: *Biotechnology and Bioengineering*. Eduardo Jacob-Lopes and Leila Queiroz Zepka (ed.); IntechOpen, London, UK. doi: 10.5772/intechopen.83818.
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  6. 2015. Charles C. Chusuei, Chi-Heng Wu, Shravan Mallavarapu, Fang-Yao Stephen Hou, Chen-Ming Hsu, Robert S. Aronstam and Yue-wern Huang. Chapter 8: Review: Physicochemical Structure Effects on Metal Oxide Nanoparticulate Cytotoxicity. In: *Recent Progress in Surface and Colloids Chemistry with Biological Applications*. Wang, C; Hauserman, B. (eds.). ACS Symposium Series, Vol.1215. American Chemistry Society, Washington DC, pp 137-155.
  7. 2014. Betty R. Liu, Yue-Wern Huang, Robert S. Aronstam, and Han-Jung Lee. Chapter 8: Cell-Penetrating Peptide-Mediated Protein Uptake in Cyanobacteria. In *Cyanobacteria: Ecological Importance, Biotechnological Uses and Risk Assessment*. Douglas Davison (ed.): Nova Science Publishers, Hauppauge, New York, pp 171-181.
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  10. 2013. Betty R. Liu, Ming-Huan Chan, Hwei-Hsien Chen, Yue-Wern Huang, Han-Jung Lee. Chapter 4: Protein Transduction in Human Cells Mediated by Arginine-rich Cell-penetrating Peptides in Mixed Covalent and Noncovalent Manners. In: *Macromolecular Chemistry: New Research*. Gartner, V. (ed.); Nova Science Publisher, Hauppauge, New York, pp 69-82.

11. 2010. Betty R. Liu, Ching-Yi Chen, Rong-Long Chen, Huey-Jenn Chiang, Yue-Wern Huang, and Han-Jung Lee. Chapter 8: Macropinocytosis: Possible Mechanisms of Cellular Entry of Arginine-rich Intracellular Delivery Peptides. In *Endocytosis: Structural Components, Functions and Pathway*. Dowler, B.C. (ed.); Nova Science Publishers, Hauppauge, New York, pp 177–190.
12. 2009. Yue-Wern Huang, Dev K. Niyogi, Paul K. Nam, and Janet M. Bandeff. Chapter 10: Livestock Hormones in Aquatic Ecosystems. In *Veterinary Pharmaceuticals in the Environment*, ACS Symposium Series 1018; Coats, J.R.; Henderson, K.L. (eds.); Oxford University Press, New York, pp 135–152.

### **MANUSCRIPTS SUBMITTED OR IN PREPARATION**

2024. Kashala Fabrice Kapiamba, Hsin-Yin Chuang, Weixing Hao, Lung-Chi Chen, Yue-Wern Huang, and Yang Wang. Exposure to electronic cigarette primary and secondhand aerosols induces cell death and compromises cell membrane integrity in lung epithelial cells. (*ACS Chemical Research in Toxicology*, in review)
2024. Kashala Fabrice Kapiamba, Stephen Yaw Owusu, Yangtao Wu, Yue-Wern Huang, Yi Jiang, Yang Wang. Examining the oxidation states of metals in aerosols emitted by electronic cigarettes. (In prep.)
2024. Fateme Fayyazbakhsh, Yue-Wern Huang, and Ming Leu. Preclinical study of 3D-printed glass-hydrogel dressings: continuous moisturizing for burn wound healing and scar prevention. (*Journal of Military Medicine*, in review)
2024. Fateme Fayyazbakhsh, Mehedi Hasan Tusar, Yue-Wern Huang, Ming C. Leu. Effect of bioactive borate glass on printability and physical properties of hydrogels. (*Materials Science in Additive Manufacturing*, in review)
2024. Amber Mills, Julie Griffith, Teresa Gluth, Duaa Dakhlallah, Anand Ranpara, Travis Goldsmith, Paul D. Chantler, Yue-Wern Huang, Jonathan Boyd, Elizabeth Bowdridge, and I. Mark Olfert. Pregnancy and postpartum effects of electronic cigarette on maternal health and vascular function. (*Reproductive Toxicology*, in review)
2024. Daniel Chi-Wei Chen, Betty R. Liu, HNWu, Shiow-Her Chiou, Han-Jung Lee, Yue-Wern Huang. Macropinocytosis-mediated cellular delivery of therapeutic agents. (*Current Gene Therapy*, in prep.)
2024. Hsin-Yin Chuang, Da Huang, Lin Qi, Vidit Singh, Anna Chernatynskaya, Yue-Wern Huang, and Hu Yang. uPA-mediated polyamidoamine dendrimer-based targeted gene delivery systems for triple negative breast cancer. (In prep.). (Yue-Wern Huang and Hu Yang are co-corresponding authors.)

### **POSTERS AND ORAL PRESENTATIONS AT PROFESSIONAL MEETINGS**

- 2024, May 14-17. Annual Meeting of Wound Healing Society. Fateme Fayyazbakhsh, Yue-Wern Huang, and Ming C. Leu. Using bioactive hydrogel dressing to prevent post-burn scarring. Orlando, Florida, USA.

- 2024, March 10-14. 63<sup>rd</sup> Annual Meeting of Society of Toxicology. Ta-Chun-Lin, Yang, Wang, and Yue-Wern Huang. Evaluating the impact of secondhand ENDS aerosols on ROS-mediated alterations of epigenetic events: implications for COPD pathogenesis. Salt Lake City, Utah, USA.
- 2023, October 2-6. 41<sup>st</sup> American Association for Aerosol Research. Kapiamba Kashala Fabrice, Gabriel Georgakopoulos, Weixing Hao, Yue-Wern Huang, Wang Yang. Physiochemical properties of thirdhand smoke generated from Electronic Nicotine Delivery Systems. Portland, OR, USA.
- 2023, August 14-17. Military Health System Research Symposium. Fateme Fayyazbakhsh, Delbert Day, Yue-Wern Huang, and Ming C. Leu. Preclinical study of 3D printed glass-hydrogel dressings: continuous moisturizing for burn wound healing. Kissimmee, FL, USA.
- 2023, April 19-22. 2023 Annual Meeting of Society for Biomaterials. Hsin-Yin Chuang, Da Huang, Hu Yang, Yue-Wern Huang. uPA- or ACP- mediated polyamidoamine dendrimer-based targeted drug delivery system for triple negative breast cancer. San Diego, CA, USA.
- 2023, March 19-23. 62<sup>nd</sup> Annual Meeting of Society of Toxicology. Kashala Fabrice Kapiamba, Hsin-Yin Chuang, Weixing Hao, Lung-Chi Chen, Yue-Wern Huang, and Yang Wang. Influence of electronic cigarette operating conditions on induced primary and secondhand aerosol toxicity: cell viability and membrane Integrity. Nashville, TN, USA.
- 2022, October 3-7. 40<sup>th</sup> American Association for Aerosol Research. Weixing Hao, Yang Wang, and Yue-Wern Huang. Influence of UV irradiation and environmental factors on the size dependent survivability of bioaerosols. Raleigh, NC, USA.
- 2022, October 3-7. 40<sup>th</sup> American Association for Aerosol Research. Kapiamba, Kashala Fabrice, Hsin-Yin Chuang, Yue-Wern Huang, and Yang Wang. Examining the influence of electronic cigarette aerosols on cell viability and membrane integrity for lung epithelial cells. Raleigh, NC, USA.
- 2022, July 25 – 27. Annual International Solid Freeform Fabrication Symposium. Fateme Fayyazbakhsh, Nathan Hirsch, Yue-Wern Huang, Delbert Day, and Ming Leu. 3D printed bioactive glass-hydrogel scaffolds for craniofacial bone defects. Austin, Texas, USA.
- 2022, March 27-31. 61<sup>st</sup> Annual Meeting of Society of Toxicology. Guang Xu, and Yue-Wern Huang. Modeling the load of SARS-CoV-2 virus in human-expelled particles during coughing and speaking. San Diego, CA, USA.
- 2022, March 27-31. 61<sup>st</sup> Annual Meeting of Society of Toxicology. Kashala Fabrice Kapiamba, Weixing Hao, Stephen Adom, Wneyan Liu, Hsin-Ying Chuang, Yue-Wern Huang, and Yang Wang. Metals Generated from Electronic Cigarettes: Mechanism and Quantification. San Diego, CA, USA.
- 2021, October 18-22. 39<sup>th</sup> American Association for Aerosol Research. Kashala Fabrice Kapiamba, Weixing Hao, Stephen Adom, Wneyan Liu, Yue-Wern Huang, Yang. Filter sample analysis of metal contents generated from electronic cigarettes and potential secondhand smoke emission. Virtual Event.



- 2021, August 2-4. 39<sup>th</sup> Annual Solid Freeform Fabrication Symposium. Fateme Fayyazbakhsh, Michelle Amato, Michael Khayat, Delbert Day, Yue-Wern Huang, Ming Leu. 3D bioprinting of cell-laden scaffolds for skin substitutes. Virtual Event.
- 2019, September 14. Missouri S&T Annual Ozark Biomedical Initiative Symposium. Chandler Mossman, Benjamin Barr, Milan Chandra, Natalie Holl, Philip D. Whitefield, and Yue-Wern Huang. Whole body inhalation chambers for health effect studies. Rolla, MO, USA.
- 2019, September 14. Missouri S&T Annual Ozark Biomedical Initiative Symposium. Natalie Holl, Melissa Cambre, Bolin Wang, Lucas Harper, and Yue-Wern Huang. Toxicity of nickel nanoparticles in human lung cells. Rolla, MO, USA.
- 2019, September 14. Missouri S&T Annual Ozark Biomedical Initiative Symposium. Natalie Holl, Brynn Shrom, Ganah Hahn, Risheng Wang, Chen Wang, and Yue-Wern Huang. QSAR optimized uPAR-targeted, DOX-loaded DNA origami are targeted, efficient drug carriers in a triple negative breast cancer model. Rolla, MO, USA.
- 2019, April 3-6. Annual Meeting of Society for Biomaterials. Youqu Shen, Mohamed Rahaman, Yongxian Liu, and Yue-Wern Huang. Geometry of open hollow hydroxyapatite microspheres influence bone regeneration in Sprague Dawley rats. Seattle, WA, USA.
- 2019, April 3-6. Annual Meeting of Society for Biomaterials. Sahitya Injamuri, Mohamed N. Rahaman, Youqu Shen, and Yue-Wern Huang. Relaxin as an enhancer of BMP-2 loaded hydroxyapatite microspheres in bone regeneration. Seattle, WA, USA.
- 2019, March 10-14. 58<sup>th</sup> Annual Meeting of Society of Toxicology. Melissa Cambre, Han-Jung Lee, Charles C. Chusuei, Raja R. Pandey, Fang-Yao Hou, and Yue-Wern Huang. Physicochemical properties of NiO and Ni(OH)<sub>2</sub> nanoparticles correlate with cytotoxicity in A549 cells. Baltimore, MD, USA.
- 2018, March 11-15. 57<sup>th</sup> Annual Meeting of Society of Toxicology. Yue-Wern Huang, Melissa Cambre, and Han-Jung Lee. Change in cell number upon nanomaterial exposure involves the suppression of proliferation and cell killing from a variety of molecular and physicochemical mechanisms. San Antonio, TX, USA.
- 2018, March 11-15. 57<sup>th</sup> Annual Meeting of Society of Toxicology. Melissa Cambre, Bolin Wang, Fang Yao Stephen Hou, Han-Jung Lee, Lucas Harper, and Yue-Wern Huang. NiO and Ni(OH)<sub>2</sub> Nanoparticles induce oxidative stress-mediated cellular signaling deregulation. San Antonio, TX, USA.
- 2017, March 12-16. 56<sup>th</sup> Annual Meeting of Society of Toxicology. Melissa Cambre, Han-Jung Lee, Fang Yao Stephen Hou, Lucas Harper and Yue-Wern Huang. Toxicity of NiO and Ni(OH)<sub>2</sub> nanoparticles are particle- and cell type-dependent and involves multiple molecular mechanisms. Baltimore, MD, USA.
- 2016, Nov. 18-21. 23<sup>rd</sup> Annual Meeting of Society of Free Radical Biology and Medicine. Hsiu-Jen Wang, Yue-Wern Huang, Daniel Hier, Shakila Tobwala, Robert Aronstam, Nuran Ercal. N-acetylcysteine amide, a thiol antioxidant, protects tBHP-induced oxidative stress in primary human retinal pigment epithelial cells. San Francisco, CA, USA.

- 2016, Aug. 14-16. 11<sup>th</sup> International Conference on the Environmental Effects of Nanoparticles and Nanomaterials (ICEENN). Yue-Wern Huang and Han-Jung Lee. Delineation of toxicity of transition metal oxide nanoparticles: what matters most? Golden, CO, USA.
- 2016, Aug. 14-16. 11<sup>th</sup> International Conference on the Environmental Effects of Nanoparticles and Nanomaterials (ICEENN). Melissa Cambre and Yue-Wern Huang. Differential cytotoxicity of NiO and NiOH nanoparticles in HepG2 and A549 cell lines. Golden, CO, USA.
- 2015, March 22-26. 54<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Larry M. Tolliver, Fang Yao Stephan Hou, Robert S. Aronstam, and Han-Jung Lee. Distinct patterns of cell death in A549 cells by fourth-period transition metal oxide nanoparticles. San Diego, CA, USA.
- 2014, March 23-27. 53<sup>rd</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Larry M. Tolliver, Fang Yao Stephan Hou, Robert S. Aronstam, and Han-Jung Lee. Influence of transition metal oxide nanoparticles on cell death and cell cycle in A549 cells. Phoenix, AZ, USA.
- 2013, Dec. 14-18. 53<sup>rd</sup> Annual Meeting of the American Society for Cell Biology. H. E. Fry, H-J. Wang, Y-W. Huang, A. L. Martin, R. S. Aronstam. M2 muscarinic receptor signaling through phospholipase C mediated by a modified G $\alpha$ q protein. New Orleans, LA, USA.
- 2013, Dec. 14-18. 53<sup>rd</sup> Annual Meeting of the American Society for Cell Biology. Y-W. Huang, F-Y. S. Hou, C-M. Hsu, C-J. Hsiao, and R. S. Aronstam. Mechanisms of toxicity and types of cell death induced by nanoscale particles. New Orleans, LA, USA.
- 2013, Dec. 14-18. 53<sup>rd</sup> Annual Meeting of the American Society for Cell Biology. H. E. Frye, H-J. Wang, Y-W. Huang, A. L. Martin, R. S. Aronstam. M2 muscarinic receptor signaling through phospholipase C mediated by a modified G $\alpha$ q protein. New Orleans, LA, USA.
- 2013, May 12-16. TechConnect World Conference. Yue-Wern Huang, Charles C. Chusuei, Chi-Heng Wu, Shravan Mallavarapu, Jeffrey G. Winiarz, Robert S. Aronstam. Cytotoxicity of fourth period transition metal oxide nanoparticles depends on certain physicochemical Properties. Washington, DC, USA.
- 2013, March 10-14. 52<sup>nd</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Charles C. Chusuei, Chi-Heng Wu, Shravan Mallavarapu, Jeffrey G. Winiarz, Robert S. Aronstam. Oxidative stress, cell viability and types of cell death induced by transition metal oxide nanoparticles depend on surface charge, available surface binding site, and ion dissolution. San Antonio, TX, USA.
- 2012, Nov. 4-6. The 1<sup>st</sup> Annual Meeting of Sustainable Nanotechnology Organization. Yue-Wern Huang, Betty Revon Liu, Han-Jung Lee. Routes of cellular uptake of nano-sized materials depend on compositions of cell-penetrating peptides. Arlington, VA, USA.
- 2012, April 21-24. Annual Meeting of the Federation of American Societies For Experimental Biology. Yue-wern Huang, A. G. Martin, H-J. Wang, P-K. Chao, A. L. Martin, E. K. Shannon, R. A. Reichard, M-H. Chan, Robert S. Aronstam. Biphenols block calcium entry in response to activation of the M3 muscarinic receptor. San Diego, CA, USA.

- 2012, April 21-24. Annual Meeting of the Federation of American Societies For Experimental Biology. Yue-wern Huang, Charles C. Chusuei, Shravan Mallavarapu, Robert S. Aronstam. Mechanisms of action of cytotoxicity of transition metal oxide nanoparticles in human lung cells. San Diego, CA, USA.
- 2011, Dec. 3-7. 51<sup>st</sup> Annual Meeting of the American Society for Cell Biology. A. G. Martin, H-J. Wang, P-K. Chao, A. L. Martin, E. K. Shannon, R. A. Reichard, Y-W. Huang, M-H. Chang, R. S. Aronstam. Honokiol blocks store operated calcium entry in CHO cells expressing the M3 muscarinic receptor. Denver, CO, USA.
- 2011, Aug. 28-31. 47<sup>th</sup> Congress of the European Societies of Toxicology. Yue-Wern Huang, Charles C. Chusuei, Shravan Mallavarapu, Jeffrey G. Winiarz, Jong-Sik Moon. Robert S. Aronstam. Searching for common denominators that explain cytotoxicity induced by metal and non-metal nanomaterials. Paris, France.
- 2011, Aug. 28-Sept. 1. 242<sup>nd</sup> ACS National Meeting. Charles Chusuei, Shravan Mallavarapu, Yue-Wern Huang. Correlation of metal oxide nanoparticle physicochemical properties with cytotoxicity, Denver, CO, USA.
- 2011, March 19-23. 42<sup>nd</sup> Annual Meeting of the American Society of Neurochemistry. J.D. Erickson, C.-H. Wu, H.-J. Wang, R.A. Reichard, E.K. Shannon, A.G. Martin, A. Martin, Y.-W. Huang, and R.S. Aronstam. Comparative effects of metal oxide nanoparticles on muscarinic receptor mediated calcium signaling. St. Louis, MO, USA.
- 2011, March 19-23. 42<sup>nd</sup> Annual Meeting of the American Society of Neurochemistry. R. S. Aronstam, T.-H. Tang, C.-T. Chang, H.-J. Wang, J. D. Erickson, A. G. Martin, R.A. Reichard, E. K. Shannon, A. Martin, and Y.-W. Huang. Disruption of muscarinic receptor signal transduction by oxidative stress. St. Louis, MO, USA.
- 2011, March 19-23. 42<sup>nd</sup> Annual Meeting of the American Society of Neurochemistry. A. G. Martin, C.-T. Chang, H.-J. Wang, J. D. Erickson, R. A. Reichard, E., K. Shannon, Y.-W. Huang. Halothane suppresses calcium signals generated in response to activation of M3 receptors expressed in CHO cells. St. Louis, MO, USA.
- 2011, March 6-10. 50<sup>th</sup> Annual Meeting of the Society of Toxicology. Joshua Erickson, Hsiu-Jen Wang, Yue-Wern Huang and Robert S. Aronstam. Disruption of muscarinic receptor mediated signal transduction by oxidative stress. Washington, D.C., USA.
- 2011, March 6-10. 50<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Chiheng Wu, Charles C. Chusuei, Shravan Mallavarapu, Jeffrey G. Winiarz. Contribution of physicochemical properties of 4<sup>th</sup> period metal oxide nanoparticles to their cytotoxicity in cultured human lung cells. Washington, D.C., USA.
- 2010, Oct. 23-25. BIT 1<sup>st</sup> Annual World Congress of Nanomedicine. Yue-Wern Huang and Han-Jung Lee. Transducible HA2-R9 fusogenic peptide enhances internalization and intracellular trafficking of quantum dots. Beijing, China.
- 2010, March 7 – 11. 49<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Chuan-Chin Huang, Yi Xu, and Robert S. Aronstam. Metal oxides influence cellular homeostasis via multiple interconnected signaling pathways. Salt Lake City, UT, USA.

- 2010, March 7 – 11. 49<sup>th</sup> Annual Meeting of the Society of Toxicology. Hsui-Jen Wang, Tso-hao Tang, Anna C. Growcock, Jennifer O’Hara, Adam Martin, Yue-Wern Huang, and Robert S. Aronstam. ZnO Nanoparticles alter muscarinic receptor ligand binding and activation of store operated calcium entry in CHO Cells. Salt Lake City, UT, USA.
- 2010, March 6 – 10. 41<sup>st</sup> Annual Meeting of the American Society for Neurochemistry. Robert S. Aronstam, Hsui-Jen Wang, Anna C. Growcock, Jennifer O’Hara, Tso-hao Tang, Adam Martin, and Yue-Wern Huang. Nanoparticle disruption of muscarinic receptor mediated signal transduction. Santa Fe, NM, USA.
- 2009, Dec. 5 – 9. 49<sup>th</sup> Annual Meeting of the American Society for Cell Biology. Yue-Wern Huang, Han-Jung Lee, Katie Shannon, and Yi Xu. A new cellular delivery system QD/sR9: exploration of the efficiency, uptake mechanism, and intracellular localization. San Diego, CA, USA.
- 2009, July 14 – 15. Annual SETAC Ozark-Prairie Chapter Meeting. Yue-Wern Huang. Atrazine exposure and breast cancer incidence in Missouri counties. Gray Summit, MO, USA.
- 2009, March 15 – 19. 48<sup>th</sup> Annual Meeting of the Society of Toxicology. Hsui-Jen Wang, Adam Martin, Yue-Wern Huang, and Robert S. Aronstam. Muscarinic M3-mediated intracellular calcium changes is pH sensitive and dependent. Baltimore, MD, USA.
- 2009, March 15 – 19. 48<sup>th</sup> Annual Meeting of the Society of Toxicology. Chuan-Chin Huang, Robert S. Aronstam, Da-Ren Chen, and Yue-Wern Huang. Increased intracellular calcium concentrations in human bronchial epithelial cells exposed to ultrafine ZnO particles. Baltimore, MD, USA.
- 2008, Dec. 13 – 17. 48<sup>th</sup> Annual Meeting of the American Society for Cell Biology. Hsui-Jen Wang, Barbara Wheelden, Anna Growcock, Yue-Wern Huang, Adam Martin, and Robert S. Aronstam. Nitric oxide and muscarinic receptor mediated signaling: influence on calcium oscillations. San Francisco, CA, USA.
- 2008, Dec. 13 – 17. 48<sup>th</sup> Annual Meeting of the American Society for Cell Biology. Chuan-Chin Huang, Da-Ren Chen, Robert S. Aronstam, and Yue-Wern Huang. Alterations in oxidative stress, apoptotic pathways, calcium metabolism and gene expression in human bronchial epithelial cells by zinc oxide nanoparticles. San Francisco, CA, USA.
- 2008, Nov. 19 – 23. 15<sup>th</sup> Annual Meeting of the Society of Free Radical Biology and Medicine. Chuan-Chin Huang, Robert S. Aronstam, Da-Ren Chen, and Yue-Wern Huang. Zinc oxide nanoparticles induce oxidative stress and alter calcium homeostasis in human bronchial epithelial cells (BEAS-2B). Indianapolis, IN, USA.
- 2008, Jul. 27 – Aug. 1. Gordon Research Conference: Mechanisms of Toxicity. Yue-Wern Huang, Chuan-Chin Huang, Robert S. Aronstam, and Da-Ren Chen. Intracellular calcium modulation and gene expression alteration in human lung epithelial cells exposed to ZnO nanoparticles. Bates College, Maine, USA.
- 2007, Aug. 29 – Sept. 1. 3<sup>rd</sup> International Nanotechnology Symposium. Yue-Wern Huang, Weisheng Lin, Katie Shannon, Yinfa Ma. In vitro oxidative stress and DNA damage induced by metal oxide particles. Taipei, Taiwan.

- 2007, March 25 – 29. 46<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Weisheng Lin, and Yinfa Ma. Oxidative stress of zinc oxide nanoparticles in human bronchoalveolar carcinoma-derived cells. Charlotte, NC, USA.
- 2007, March 25 – 29. 46<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, Yinfa Ma, Weisheng Lin, and Xiao-Dong Zhou. *In Vitro* toxicity of silica nanoparticles in human lung cancer cells. Charlotte, NC, USA.
- 2007, Feb. 25 – March 2. 58<sup>th</sup> Pittsburgh Conference. Weisheng Lin, Yinfa Ma, Yue-Wern Huang. The cytotoxicity and cytotoxic mechanisms of zinc oxide nanoparticles in lung cancer cells. Chicago, IL, USA.
- 2007, Feb. 25 – March 2. 58<sup>th</sup> Pittsburgh Conference. Xiaoqian Liu, Mike J. Dandurand, Jianmin Wang, Yue-Wern Huang, Philip Whitefield, and Yinfa Ma. The effect of nanoparticles on the cytotoxicity of arsenic in human lung cells. Chicago, IL, USA.
- 2006, March 12 – 17. Pittsburgh Conference. Xiaoqian Liu, Weisheng Lin, Yue-Wern Huang, Xiaodong Zhou, Paul Nam, Philip Whitefield, and Yinfa Ma. Determination of 8-iso prostaglandin F<sub>2</sub> in human lung cancer cell after exposure to CeO<sub>2</sub> nanoparticles. Orlando, FL, USA.
- 2006, March 5 – 9. 45<sup>th</sup> Annual Meeting of the Society of Toxicology. Weisheng Lin, Yue-Wern Huang, Xiao-Dong Zhou, Paul Nam, and Yinfa Ma. The cytotoxicity and cytotoxic mechanisms of cerium oxide nanoparticles against lung cancer cells. San Diego, CA, USA.
- 2005, Nov. 16 – 20. 12<sup>th</sup> Annual Meeting of the Society for Free Radical Biology and Medicine. Rong Shi, Yue-Wern Huang, and Nural Ercal. Biological thiols in soy proteins protect Sprague-Dawley rats against the oxidative stress induced by adriamycin. Austin, TX, USA.
- 2005, Oct. 31 – November 4. International Congress of Nanotechnology. Yue-Wern Huang, Weisheng Lin, Isaac Stayton, Xiao-Dong Zhou, Paul Nam, and Yinfa Ma. Cytotoxicity of selected metal oxide and SiO<sub>2</sub> nanoparticles against lung cancer cells. San Francisco, CA, USA.
- 2005, Oct. 25 – 28. Mechanisms of Action of Inhaled Fiber, Particles, and Nanoparticles in Lung and Cardiovascular Disease. Yue-Wern Huang, Weisheng Lin, Isaac Stayton, Xiao-Dong Zhou, Paul Nam, and Yinfa Ma. Cytotoxicity and single cell imaging of selected metal oxide and SiO<sub>2</sub> nanoparticles against lung cancer cells. Research Triangle Park, NC, USA.
- 2005, June 19-22. 2<sup>nd</sup> International Hellbender Symposium. Yue-Wern Huang, Mauricio Solis, Chihchin Liu, Dev Niyogi, and Paul Nam. Hematology, hormone profiling, and water quality assessment of Ozark hellbenders in the Eleven Point River and the North Fork of White River, Missouri. Lakeview, AR, USA.
- 2005, Feb. 27 – March 4. Pittsburgh Conference. Weisheng Lin, Isaac Stayton, Yue-Wern Huang, Xiao-Dong Zhou, Harlan Anderson, and Yinfa Ma. The study of cytotoxicity of selected metal oxide and SiO<sub>2</sub> nanoparticles in lung cancer cells. Orlando, FL, USA.
- 2004, Dec. 5-8. The 5<sup>th</sup> Asia-Pacific International Symposium on Microscale Separation and Analysis (APCE'2004). Weisheng Lin, Isaac Stayton, Yue-Wern Huang, Xiao Dong Zhou, Bingcheng Lin, and Yinfa Ma. Investigation of the cytotoxicity of metal oxide nanoparticles by using single molecule imaging system and capillary electrophoresis. Seoul, South Korea.

- 2004, Nov. 14-18. The 25<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, Chihchin Liu, Paul Nam, Dev Niyogi, and Mauricio Solis. Endocrine modulators and excess nutrients in West Locust Creek and Little Medicine Creek in northern Missouri. Portland, OR, USA.
- 2004, May 26-31. Joint Meetings of Ichthyologists and Herpetologists. Mauricio Solis, Paul Nam, Dev Niyogi, and Yue-Wern Huang. Water quality assessment, endocrine disruption, and hematology of Ozark hellbenders (*Cryptobranchus alleganiensis bishopi*) in Eleven Point and North Fork of the White River, Missouri. Tulsa, OK, USA.
- 2004, March 3-5. Annual SETAC Ozark-Prairie Chapter meeting. Yue-Wern Huang, Mauricio Solis, Paul Nam, Dev Niyogi, and Chihchin Liu. Identify endocrine modulators and assess excess nutrients in Little Medicine Creek and West Locust Creek in Missouri. La Crosse, WI, USA.
- 2003, Nov. 9-13. 24<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Nespoli, L. M., Yue-Wern Huang, and Kyle Selcer. Endocrine induction of vitellogenin in two species of North American salamanders. Austin, TX, USA.
- 2003, Nov. 9-13. 24<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, Mauricio Solis, Jacob Phillips, Paul Nam, Dev Niyogi, and Chihchin Liu. Endocrine modulators and excess nutrients in Little Medicine Creek and West Locust Creek in Missouri. Austin, TX, USA.
- 2003, March 23-27. 225<sup>th</sup> Annual Meeting of the American Chemical Society. Junnan Chen, Guanshu Liu, Ming Du, Yue-Wern Huang, and Yinfa Ma. Topoisomerase-targeting anticancer drug screening by capillary electrophoresis. New Orleans, LA, USA.
- 2002, Nov. 16-20. 23<sup>rd</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, and Paul Nam. Identification and biological screening of endocrine disruptors in effluents from Missouri sewage treatment plants. Salt Lake City, UT, USA.
- 2001, Nov. 12-16. 22<sup>nd</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, Dave J. Hoffman, and William H. Karasov. Oxidative stress in northern leopard frogs exposed to PCB 126. Baltimore, MD, USA.
- 2000, March 19-23. 39<sup>th</sup> Annual Meeting of the Society of Toxicology. Yue-Wern Huang, J. B. Matthews, and T. R. Zacharewski. Establishment of *Xenopus laevis* as a model for investigating *in vitro* and *in vivo* endocrine disruption in amphibians. Philadelphia, PA, USA.
- 1998, March 20-21. Midwest Declining Amphibians Conference. Yue-Wern Huang, W. H. Karasov, K. A. Patnode, and C. R. Jefcoate. Exposure of northern leopard frogs in the Green Bay ecosystem to polychlorinated hydrocarbons as measured by direct chemistry and hepatic activity. Milwaukee, WI, USA.
- 1997, April 2-4. 5<sup>th</sup> Annual Meeting of the Midwest Chapter of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, W. H. Karasov, and K. A. Patnode. The levels of polyhalogenated hydrocarbons in northern leopard frog and evaluation of EROD as a biomarker. Green Bay, WI, USA.

- 1997, April 2-4. 5th Annual Meeting of the Midwest Chapter of Society of Environmental Toxicology and Chemistry. Yue-Wern Huang and W. H. Karasov. The toxicokinetics of PCB 126 and the detoxifying enzymes in organs of northern leopard frogs. Green Bay, WI, USA.
- 1996, Nov.17-21. 17<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Yue-Wern Huang, W. H. Karasov, K. A. Patnode, and C. R. Jefcoate. The levels of polyhalogenated hydrocarbons in leopard frog and evaluation of EROD as a biomarker in Green Bay ecosystem. Washington, D. C., USA.
- 1994, Oct. 30-Nov. 3. 15<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, Yue-Wern Huang, M. J. Melancon, R. E. Jung, and W. H. Karasov. Induction of cytochrome P450-associated monooxygenases in northern leopard frogs, *Rana Pipiens*, by 3,3',4,4',5-pentachlorobiphenyl (PCB 126). Denver, CO, USA.

### **INVITED SEMINARS**

- 2022, June 17. National Taiwan Normal University, College of Life Science. Title: From Bioaerosol Detection to Electronic Cigarette Smoke: It is all about particles. Taipei, Taiwan.
- 2022, June 14. National Cheng Chi University, Institute of Neuroscience. From Bioaerosol Detection to Electronic Cigarette Smoke: It is all about particles. Taipei, Taiwan.
- 2022, January 31. Missouri S&T, Department of Chemical and Biochemical Engineering. Title: Collaborative Projects to Advance Science and Technology. Rolla, MO, USA.
- 2019, December 19. Tongji University, School of Materials Science and Technology. Title: Delivery Platforms: Toxicity and Efficacy. Shanghai, China.
- 2019, December 12. Wuhan University, School of Chemistry and Molecular Science. Title: Delivery Platforms: Toxicity and Efficacy. Wuhan, China.
- 2019, November 19. Illinois State University, School of Biological Sciences. Title: Delivery Platforms: Toxicity and Efficacy. Normal, IL, USA.
- 2019, January 24. Texas Tech University, Department of Biological Sciences. Title: Advancing Interdisciplinary Research and Education. Lubbock, TX, USA.
- 2018, June 5. National Cheng Chi University. Title: Inspired by the Nature. Taipei, Taiwan.
- 2018, March 10. Missouri S&T, Department of Chemical and Biochemical Engineering. Delivery of Biologically Active Molecules for Biomedical Research and Application: Uptake, Efficacy and Toxicity. Rolla, MO, USA.
- 2016, May 25. National Cheng Chi University. Title: A Journey of Environmental Protection: Putting it in Social and Education Context. Taipei, Taiwan.
- 2015, Sept. 28. University of Missouri-Columbia School of Medicine. Title: Properties of Engineered Nanoparticles Influence Nanodelivery and Nanotoxicity. Columbia, MO, USA.
- 2014, May 26. National Taiwan Normal University. Title: Biology and Beyond. Taipei, Taiwan.

- 2014, May 23. National Taiwan Normal University. Frontiers in Biopharmaceuticals Conference. Title: Materials for Biomedical Applications. Taipei, Taiwan. Sponsored by Taiwan National Science Council.
- 2013, July 4. Academia Sinica Institute of Atomic and Molecular Science. Title: Cytotoxicity is a Function of Multiple Physical and Chemical Properties of Nanomaterials: Implications for Design of Safer Nanomaterials. Taipei, Taiwan.
- 2012, Aug. 7. US Environmental Protection Agency (EPA). Title: Cytotoxicity of Transition Metal Oxide Nanoparticles Depends on Certain Physicochemical Properties. Research Triangle Park, NC, USA.
- 2012, March 19, 2012. NIBIB/NIH, Laboratory of Molecular Imaging and Nanomedicine. Title: Nanodelivery Depends on Types of Cell-penetrating Peptides and Cargos. Bethesda, MD, USA.
- 2011, Nov. 29. University of Missouri-Columbia. Title: Cell-Penetrating Peptides and Fluorescent Nanomaterials as a Versatile Nanocarrier System. Columbia, MO, USA.
- 2011, July 5. Academia Sinica Institute of Genomics Research. Title: Cell-Penetrating Peptide Mediated Delivery of Nanomaterials: Routes of Cell Entry. Taipei, Taiwan.
- 2011, June 28. National Cheng Kung University. Title: Cell-Penetrating Peptide Mediated Delivery of Nanomaterials: Routes of Cell Entry. Tainan, Taiwan.
- 2011, June 24. National Dong Hwa University. Title: Non-metal vs. Metal Oxide Nanoparticles: Roles in ROS-Induced Toxicity. Hualien, Taiwan.
- 2011, June 22. National Taiwan Normal University. Title: Cell-Penetrating Peptide Mediated Delivery of Nanomaterials: Routes of Cell Entry. Taipei, Taiwan.
- 2011, Feb. 24. Missouri S&T Department of Chemical and Biological Engineering. Title: Nanobiotechnology. Rolla, MO, USA.
- 2010, June 1. Tzu Chi University Department of Pharmacology and Toxicology. Title: Cytotoxicity of Transition Metal Oxide Nanoparticles: An Integrative Paradigm. Hualien, Taiwan.
- 2010, May 24. National Taiwan University College of Public Health. Title: Metal Oxides Influence Cellular Homeostasis via Multiple Interconnected Signaling Pathways. Taipei, Taiwan.
- 2009, Nov. 14. Midwest Chinese American Science and Technology Association. Title: A Novel System to Deliver and Monitor Biologically Active Molecules. St. Louis, MO, USA.
- 2009, June 2. National Ilan University. Title: Nano- and Micro-sized ZnO Particles Induce Oxidative Stress and Alter Calcium Homeostasis in Human Bronchial Epithelial Cells (BEAS-2B): Size Effect Comparison. Ilan, Taiwan.
- 2009, May 1. New York University Department of Environmental Medicine. Title: Nanobiotechnology: a Doubled Edged Sword. Tuxedo, New York, USA.
- 2009, March 9. University of Colorado-Denver Department of Biology. Title: Nanotoxicology. Denver, Colorado, USA.



- 2007, Aug. 23. National Cheng Kung University Medical College. Title: Mechanisms of Nanomaterial Cytotoxicity. Tainan, Taiwan.
- 2007, Aug. 27. Tzu Chi University Department of Pharmacology and Toxicology. Title: Comparative Toxicity and Mechanisms of Nano-sized Metal Oxides. Hualien, Taiwan.
- 2007, March 25-29. 233rd American Chemical Society National Meeting, Symposium: Veterinary Pharmaceuticals in the Environment. Title: Livestock Hormones in the Environment. Chicago, Illinois, USA.
- 2006, Sept. 26. Clemson University. Title: Estrogen Mimics in the Environment. Clemson, South Carolina, USA.
- 2006, Feb. 1-3. Missouri Natural Resources Conference. Title: General Health, Reproductive Hormones, and Habitat Water Quality of Ozark Hellbenders, *Cryptobranchus alleganiensis Bishopi*. Lake of the Ozarks, Missouri, USA.
- 2003, Jan. 31. Truman State University Division of Science. Title: Point Source and Nonpoint Source Endocrine Disruption Studies in the Environment. Kirksville, Missouri, USA.
- 2002, Nov. 14. Texas A&M University Department of Wildlife and Fisheries Sciences. Title: Endocrine Disruptor Screening and Toxicity Mechanisms. College Station, Texas, USA.
- 2002, June 12. Soochow University Department of Microbiology, Taipei, Taiwan.
- 2002, June 13. Tzu Chi University Department of Life Sciences, Hualien, Taiwan.
- 2002, June 14. National Dong Hwa University Department of Life Sciences, Hualien, Taiwan.
- 2002, June 18. Division of Environmental Health and Occupational Medicine, National Health Research Institutes, Kaohsiung, Taiwan.
- 2002, June 27. National Taiwan Normal University Department of Biology, Taipei, Taiwan.
- 2001, Feb. 1. US Geological Survey, Columbia, MO. Title: Exposure of Northern Leopard Frogs to PCB 126, an Aryl Hydrocarbon Receptor agonist: Direct chemistry, Biochemical Markers, and Toxicokinetics.” Columbia, Missouri, USA.
- 2001, Jan. 19. Southwest Missouri State University Department of Biology. Title: *In vitro* and *in vivo* Bioassays for Investigating Estrogen like Chemicals in *Xenopus laevis*. Springfield, Missouri, USA.
- 1999, Dec. 17. National Taiwan Normal University. Title: Amphibian Exposure to Chlorinated Hydrocarbons. Taipei, Taiwan.
- 1999, Dec. 13. National Central University. Title: Amphibian Exposure to Environmental Estrogenic Chemicals. Chong-Li, Taiwan.

#### **NATIONAL AND INTERNATIONAL ACADEMIC SERVICE**

- 2023. NIH Tobacco Regulatory Science A Review Panel ZRG1 ICN-E(56); Ad Hoc Member.
- 2023 – Research center performance assessment panelist (overseas member). National Taiwan University Biodiversity Research Center. Taipei, Taiwan.

- 2020 – Current. Editorial Board, MDPI Cells.
- 2018 – Current. Editorial Board, Current Gene Therapy.
- 2019 – Current. Ad Hoc member, US EPA Toxic Substance Control Act (TSCA) Science Advisory Committee on Chemicals (SACC).
- 2020. Research proposals reviewer. Czech Science Foundation.
- 2014 – 2022. Review Editor, Frontiers in Environmental Health.
- 2019. Poster session chair: Nanotoxicology *In Vitro*: Mechanism, Uptake, and Cellular Response. Society of Toxicology annual conference. Washington DC, USA.
- 2018 – Research center performance assessment panelist (overseas member). National Taiwan University Biodiversity Research Center. Taipei, Taiwan.
- 2017/2018 – Reviewer of tenure and promotion cases. Old Dominion University; National Tsing Hua University.
- 2016 – Reviewer of the e-book proposal “Cancer Therapy - A Potential Application of Nanotechnology”, Bentham Science Publishers.
- 2016 – Reviewer of the e-book proposal “Recent Advances in Nanotechnology”, Bentham Science Publishers.
- 2015. Research proposal reviewer. United Kingdom Medical Research Council.
- 2015. Research proposal reviewer. Oak Ridge Associated Universities; NIOSH.
- 2014. Graduate program assessment panelist. National Taiwan University Institute of Ecology and Evolutionary Biology. Taipei, Taiwan.
- 2014. Platform/poster proposals reviewer. Society of Toxicology Nanotoxicity Specialty Session.
- 2010. Co-chair, Track 3-1: Nanotechnology & Nanostructure Materials as Intelligent Therapy, BIT 1<sup>st</sup> Annual World Congress of Nanomedicine. Beijing, China.
- 2010. Proposal reviewer. U.S. Army Corps of Engineers Engineer Research and Development Center.
- 2010. Proposal reviewer of the National Strategic Nanoscience and Nanotechnology Program, National Science Council, Taiwan.
- 2008. Graduate student committee member, Department and Institute of Life Sciences, National Dong Hwa University, Taiwan.
- 2008. Poster session chair of the 47<sup>th</sup> Annual Meeting of the Society of Toxicology. Session Title: Gene Regulation and Genomic Approaches. March 16-20, 2008, Seattle, WA, USA.
- 2005. USEPA Study Section Panelist. 2005, July 14 – 15. Washington, D. C., USA.
- 2005. Conference Program Chair. Advances in Biomedical and Nanotechnology Workshop. Sponsored by National Science Council in Taiwan, Midwest Chinese American Science and Technology Association, Taipei Economy and Culture Office in Houston, and National

Health Research Institute in Taiwan. October 15, 2005. St. Louis, MO, USA.

- 2005. Conference Program Chair of the 22<sup>nd</sup> Annual Midwest Chinese American Science and Technology Association Conference. October 15, 2005, St. Louis, MO, USA.
- 2005 – 2014. Board of Directors of the Midwest Chinese American Science and Technology Association.
- 2004 – 2006. Board of Directors of the Society of Environmental Toxicology and Chemistry (SETAC) Ozark-Prairie Chapter.
- 2004. Conference platform session chair of the Life Science and Biotechnology Session of the 21<sup>st</sup> annual meeting of Midwest Chinese American Science and Technology Association. August 21, 2004. St. Louis, MO, USA.
- 2003. Conference platform session chair of the 24<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry. Session Title: Endocrine Disruption in Aquatic Environments. November 9-13, 2003. Austin, TX, USA.

### **REVIEWER OF PEER-REVIEWED JOURNALS**

Accounts of Chemical Research; Langmuir; Theranostics; Bioactive Materials; Acta Biomaterialia; Biomaterials; Scientific Reports; Biotechnology and Bioengineering; Nanotoxicology; Drug Delivery; Pharmacological Reports; Environmental Health Perspectives; ACS Biomacromolecules; ACS Applied Nano Materials; ACS Applied Materials & Interfaces; ACS Process Chemistry; Science of the Total Environment; Current Gene Therapy; Expert Opinion on Drug Delivery; Journal of Biomedical Nanotechnology; British Journal of Applied Science and Technology; Artificial Cells, Nanomedicine and Biotechnology; Chemical Research in Toxicology; Environmental Pollution; Journal of Applied Toxicology; Journal of Nanoparticle Research; Advanced Materials Letters; Toxicology in Vitro; Toxicology Letters; Toxicology; Cell Biology and Toxicology; Environmental Science and Technology; Environmental Toxicology and Chemistry; BBA Biomembranes; Journal of Membrane Biology (BioMed Central); Journal of Agricultural and Food Chemistry; Ecotoxicology and Environmental Safety; Process Safety and Environmental Protection; Process Biochemistry.

### **DEPARTMENTAL INTERNATIONAL SCHOLAR EXCHANGE PROGRAM**

Facilitated establishment of this program by visiting universities in Taiwan twice. Between 2009 and 2013, 20 graduate students from Taiwan's universities have participated in this program. They studied in seven laboratories. I coordinated selection of students, their logistics including visa applications, housing, transportation, meetings, research projects, and exit seminars.

### **COURSES TAUGHT**

- Toxicology
- Nanobiotechnology
- Issues in Public Health

- Ecology (current)
- General Biology
- Cell Biology
- Environmental Science
- Senior Seminar
- Graduate Seminar (course coordinator)
- Tissue Engineering (team taught)
- Techniques in Applied and Environmental Biology (team taught, course coordinator)
- Problems in Applied and Environmental Biology (team taught, course coordinator)

### **SERVICE TO UNIVERSITY COMMUNITY**

- Member, S&T Vice Chancellor for Strategic Innovation, Enterprises, and External Government Relations Committee (2023)
- Chair, S&T College of Arts, Sciences, and Education Safety Committee (2023 – Current)
- Chair, S&T College of Arts, Sciences, and Education Staff Award Committee (2023 – Current)
- Member, S&T Board of Trustee Research and Technology Commercialization Committee (2022 – Current)
- Member, Biological Sciences PhD Degree Proposal Development Committee (2023)
- Member, Bioengineering PhD Degree Proposal Development Committee (2023)
- Member, S&T Campus-wide Kummer Institute Innovation and Entrepreneurship Doctoral Fellowship Selection Committee (2022)
- Member, S&T Campus-wide Kummer Institute Ignition Grant Selection Committee (2022)
- Member, S&T Budgetary Affairs (2022 – 2024)
- Member, Campus-wide Global Studies Minor Degree Program Committee (2020 – 2022)
- Member, Bioengineering Undergraduate Degree Program Committee (2020)  
(Ad Hoc committee to establish a degree program)
- Member, Search Committee of S&T Compliance Officer (2019 – 2020)
- Member, Search Committee of Associate Vice Chancellor of Research (2019)
- Member, Department Strategic Planning Committee (2019 – Current)
- Member, S&T Campus Tenure Track Promotion and Tenure Reviewing Committee (2016 – 2019)
- Member, S&T Campus Non-Tenure Track Reviewing Committee (2016 – 2018)

- Chair, Missouri S&T Sciences Area Promotion and Tenure Reviewing Committee (2016 – 2018)
- Chair, Missouri S&T College of Arts, Sciences, and Business Tenure Track Promotion and Tenure Reviewing Committee (2018)
- Co-chair, Missouri S&T Campus Nontenure Track Promotion Reviewing Committee (2018)
- Reviewer, The Mallinckrodt Inc. research proposals (June 2018)
- Chair, Dept. Promotion and Tenure Reviewing Committee (2016, 2017)
- Member, S&T College of Arts, Science and Business (CASB) Promotion and Tenure Third-Year Reviewing Committee (2016, 2017)
- ICARE Academy Training (2018)
- Member, S&T Field Station Director Search Committee (2017)
- Member, S&T campus level Best-in-Class (BIC) Advanced Manufacturing Faculty Search Committee (2017)
- Member, S&T College of Engineering and Computing Promotion and Tenure Third-Year Reviewing Committee (2016)
- Panelist, Missouri S&T NIH Proposal Development Workshop (2016)
- Member, S&T Schrenk Hall Renovation Steering Committee (2015 – 2016)
- Chair, S&T Interdisciplinary PhD Program in Bioscience Development Committee (2015 – 2016)
- Member, S&T Radiation Safety Committee (under Environmental Health and Safety) (2015 – Current)
- Member, S&T Vice Provost and Dean Search Committee (2014)
- Organizer, Department seminar series (2000 – 2005; 2016)
- Department Representative to S&T Graduate Faculty Council (2014 – 2015)
- Member, S&T Vice Provost and Dean Search Committee (2014)
- Member, S&T Faculty Senate Tenure Policy Committee (2013 – 2015)
- S&T Faculty Senate (2007 – 2019)
- S&T Academic Freedom Committee
- Academic Council Promotion and Tenure Policy Committee (2006 – 2008)
- College of Arts and Sciences Promotion and Tenure Reviewing Committee (2006)
- Dept. Communication Committee (2006 – 2009)
- Department Representative to UMR Academic Council (2005 – 2007)
- CAS Student Academic Affairs Committee (2004)

- Dept. Graduate Committee (2002 – 2005)
- College of Arts and Science Student Academic Affairs Committee (2002 – 2003)
- Reviewer, UM Research Board (Winter 2002)
- Dept. Research Equipment Committee (2000 – 2005)
- Dept. Undergraduate Scholarship Committee (2000 – 2005)
- Dept. Helix Group Co-adviser (student organization; 2000 - 2003)
- Chair, Dept. Infrastructure Committee
- Dept. Undergraduate Scholarship Committee (2000 – 2005)
- Dept. Budget Committee (2001 – 2004)
- Judge, Undergraduate Research Symposium (OURE; 2001)

### **GRADUATE STUDENTS**

- Ta-Chun Li, MS student, Missouri S&T Biological Sciences. Spring 2023 – Current.
- Hsin-Yin Chuang, MS student, Missouri S&T Biological Sciences. Spring 2022 – Fall 2023.
- Jeffery Kwarteng, MS student, Missouri S&T Biological Sciences. 2021 – 2022.
- Natalie Holl, MS student, Missouri S&T Biological Sciences. Targeting Urokinase-Type Plasminogen Activator Receptor to Treat Triple Negative Breast Cancer. Fall 2018 – Fall 2020.
- Melissa Cambre, MS student, Missouri S&T Biological Sciences. Thesis title: Comparative Toxicology of NiO and Ni(OH)<sub>2</sub> Nanoparticles. Fall 2015 – Summer 2018.
- Sahitya Injamuri, MS student, Missouri S&T Biological Sciences. Thesis title: Combination of BMP-2 and Relaxin to Induce Osteogenesis in vivo. Fall 2015 – August 2017.
- Larry Tolliver, MS student, Missouri S&T Biological Sciences. Thesis title: Cytotoxic Effects of Fourth-Period Transition Metal Oxide Nanoparticles in Human Lung Cancer A549 Cells. Fall 2013 – Spring 2015.
- Chi-Heng Wu, MS student, Missouri S&T Biological Sciences. Thesis title: Physiochemical Characteristics Contributing to the Cytotoxicity of Transition Metal Oxides. Fall 2010 – Spring 2012.
- Ninu Madria, MS student, Missouri S&T Biological Sciences. Thesis title: Synthesis and Toxicity of Imidazolium-Based Ionic Liquids. Fall 2010 – Spring 2011. (co-advisor: V. Prakash Reddy, Chemistry)
- Yi Xu, MS student, Missouri S&T Biological Sciences. Thesis title: Nona-Arginine Facilitates Delivery of Quantum Dots into Cells via Multiple Pathways. Summer 2007 – Fall 2009.
- Chuan-Chin Huang, MS student, Missouri S&T Biological Sciences. Thesis title: Heavy

Metals, Hematology, Plasma Chemistry and Parasites in Adult Hellbenders (*Cryptobranchus alleganiensis*). Summer 2007 – Spring 2009.

- Weisheng Lin, Ph.D. UMR Chemistry (co-adviser). Thesis title: *In Vitro* Toxicity and Oxidative Stress Induced by Silica, Cerium Oxide, and Zinc Oxide Nanoparticles in Human Lung Epithelial Cells. Fall 2003 – Summer 2007.
- Loretta Hunter, MS, UMR Biological Sciences. Thesis title: A Review of Human Exposure to Estrogens and an Ecologic Study of Atrazine Exposure and Breast Cancer Incidence in Missouri Counties. Fall 2005 – Summer 2006.
- Rong Shi, MS, UMR Chemistry (co-advisor). Thesis title: Effects of a Newly Synthesized Thiol Antioxidant on Doxorubicin-induced Oxidation. Spring 2005 – Summer 2006.
- Mauricio E. Solis, MS, UMR Biological Sciences. Thesis title: Water Quality Assessment, Hormone Profile, and Hematology of Ozark Hellbenders (*Cryptobranchus alleganiensis Bishopi*) in the north fork of the White River and the Eleven Point River, Missouri. Summer 2003 – Summer 2005.
- Chihchin Liu, MS, UMR Biological Sciences. Thesis title: Endocrine Disrupting Chemicals in Streams of northern and southern Missouri. Fall 2003 – Summer 2005.
- Junnan Chen, MS, UMR Chemistry (co-adviser). Thesis title: Glycoprotein Characterization by HPLC-ESI-MS and Anticancer Drug Screening and Mechanism Study. Fall 2002 – Winter 2003.

### **CURRENT AND PAST UNDERGRADUATE RESEARCH ASSISTANTS**

Greg Schmoll; Greg Brandt; Megan Kreitner; Travis Tinsley; Jessica Shaffer; Dirac Twidwell; Robert Hail; Jason Elrod; John Y. Young; Sarah Neely; Rachel Carter; Isaac Deatherage; Jamie Statler; Angela Rudolph; Charles Benjamin Bowe; Michael Vernon Little; Janet Bandeff (technician, MS); Lennia Knupp; Anderson Costa (Brazil exchange); Kaitlyn Safarik; Kent Lin, Anthony Bitar; Logan Featherston; Kwther Albasha; Rosamond Hoyle; Bolin Wang; Lucas Harper; Andrew Murphy; Lucas Harper; Ganan Hahn; Kaitlyn Oberkirsch; Brynn Schrom; Chandler Mossman; Jasper Byrd; Bolin Wang; Austin Hall; Milan Chandra; Benjamin Barr; Isaac Snodgrass; Yat Hin Boris Cheung; Emily McCole; Brittney Hahn; Maya Washington; Mikaela, Ritchie.

### **MISSOURI S&T OPPORTUNITIES FOR UNDERGRADUATE RESEARCH EXPERIENCES (OURE) PROJECT SUPERVISION**

- 2021 – 2022. Maya Washington. Project title “Bone Tissue Engineering Scaffolds Based on Sr-doped Bioactive Borate Glass”. \$700.
- 2021 – 2022. Emily McCole. Project title “Evaluation of osteoinductivity of 3D printed Sr-doped Glass-hydrogel Bone Tissue Engineering Scaffolds”. \$700.
- 2019 – 2020. Jasper Byrd. Project title “Antimicrobial efficacy of Lactoferricin vs. Ampicillin”. \$700.

- 2019 – 2020. Isaac Snodgrass. Project title “Analysis of Cellular Uptake Mechanism and Efficiency of Doxorubicin Nanoparticle”. \$700.
- 2017 – 2018. Kaitlyn Oberkirsch. Project title “Development of a Doxorubicin Resistant Cell Line for Cancer Treatment Studies”. \$700.
- 2017 – 2018. Brynn Shrom. Project title “Shape-dependent Anticancer efficacy of DNA/DOX Complexes in Microfluidic Device. \$700.
- 2017 – 2018. Ganan Hahn. Project title “In Vitro evaluation of Anticancer Efficacy of DNA/DOX Complexes Using Microfluidic Chip-Based 3D Co-culture. \$700.
- 2016 – 2017. Lucas Harper. Project title “Biochemical and Cellular Responses Induced by Nickel Nanoparticles”. \$1,200.
- 2016 – 2017. Bolin Wang. Project title “Influence of Nanoparticles on Animal Cell Membrane Fluidity”. \$1,200.
- 2015 – 2106. Anthony Bitar. Project title “Evaluation of Bioactive Glass Implants as Devices for Local Delivery of Pain Killers”. \$1,200. (Missouri S&T OURE Fellow)
- 2015 – 2106. Mikaela R. Insall. Project title “Evaluation of Bioactive Glass Implants as Devices for Local Delivery of Pain Killers”. \$1,200.
- 2015 – 2016. Kwther Albash. Project title “Therapeutic Effects of Tamoxifen on Chemically Induced Breast Cancer Rats. \$1,200.
- 2015 – 2016. Grace Deitzler. Project title “Chemically Induced Carcinogenesis via DMBA in Sprague-Dawley Rats”. \$1,200.
- 2015 – 2016. Rosamond Hoyle. Project title “Developing a Chemically-Induced Breast Cancer Rat Model”. \$1,200.
- 2012 – 2013. Ryan Morse. Project title “Toxicity of Nanosized Nickel Oxides in Mammalian Cells”. \$1,200.
- 2012 – 2013. Christine Raczka. Project title “ROS-independent Toxicity of Nanosized Zinc Oxides in Human Lung Cancer Cells”. \$1,200.
- 2011 – 2012. Mike V. Little. Project title “Cellular Uptake Mechanism of QD/sHR9”. \$1,200.
- 2008 – 2009. Jamie (Moline) Statler. Project title “Development of an Effective Biomolecule Delivery System”. \$1,200.
- 2006 – 2007. Greg Schmoll. Project title “Effects of Benzo(a)pyrene, Carbon Black, and their Mixtures on Oxidative Stress in Human Bronchoalveolar Carcinoma-Derived Cells”. \$1,500.

#### **GRADUATE ADVISORY COMMITTEE MEMBER AT MISSOURI S&T**

- Huari, Kou, PhD student, Chemical and Biochemical Engineering, Spring 2022 – Current.
- Stephen Adom, PhD student, Chemistry, Spring 2022 – Current.



- Vidit Singh, PhD student, Chemical and Biochemical Engineering, Spring 2021 – Current.
- Behzad Boroomandisorkhabi, PhD student, Electrical Engineering, Fall 2020 – Current.
- Yuwei Zhang, PhD student, Chemistry, Fall 2020 – Current.
- Krishna Thapa, PhD student, Chemistry, Spring 2020 – Current.
- Olajide Philip Adetunji PhD student, Chemistry, Spring 2020 – Current.
- Nada Abokefa, MS student, Biological Sciences, Spring 2020 – Fall 2021.
- Shuo Yang, PhD student, Chemistry, Fall 2018 – Spring 2021.
- Justin Beltz, PhD student, Chemistry, Spring 2017 – Spring 2021.
- Xuesong Liu, PhD student, Environmental Engineering, Fall 2016 – Spring 2020.
- Youqu Shen, PhD student, Material Science and Engineering, Spring 2016 – Summer 2019.
- Nikki Gomez, MS student, Biological Sciences, Spring 2016 – Spring 2018.
- Tynyaboon Laemthong, MS student, Chemical and Biochemical Engineering, Spring 2015 – Summer 2016.
- Krishna Kolan, PhD student, Mechanical Engineering, Spring 2014 – Summer 2015.
- Albin Thomas, MS student, Mechanical Engineering, Spring 2014 – Summer 2015.
- Kaushalya Amunugama, MS student, Biological Sciences, Spring 2014 – Fall 2015.
- Lihong Jiao, MS student, Biological Sciences, Spring 2012 – Spring 2014.
- Weili Fan, PhD student, Chemistry, Spring 2012 – Spring 2014.
- Woon Su Oh, PhD student, Chemistry, Spring 2012 – Spring 2013.
- Abhishek Nandkishore Bang, PhD student, Chemistry, Fall 2010 – Spring 2014.
- Jong-Sik Moon, PhD student, Chemistry, Fall 2010 – Spring 2014.
- Weiqing (Emily) Chen, MS student, Chemistry. Fall 2008 – Spring 2010.
- Xinsheng Zhang, MS student, Chemistry. Fall 2006 – Fall 2008.
- Xiaoqian Liu, PhD student, Chemistry. Fall 2005 – Summer 2009.
- Tongwen Wang, PhD student, Chemistry. Fall 2004 – Summer 2007.
- Suneetha Mare, MS student, Chemistry. Fall 2004 – Fall 2006.
- Arun Sahu, MS student, Chemistry. Fall 2004 – Spring 2006.
- Isaac A. Stayton, PhD student, Chemistry. Fall 2003 – Fall 2009.
- Stephen E. Gibbons, PhD student, Chemistry. Winter 2004 – Fall 2010.
- Feng Liu, PhD candidate, Chemistry. Fall 2003 – Spring 2004.
- Guanshu Liu, MS student, Chemistry. Winter 2002 – Winter 2003.

**GRADUATE COMMITTEE MEMBER OUTSIDE MISSOURI S&T**

- Weixing Hao, PhD student, Chemical, Environmental, and Materials Engineering, University of Miami. Fall 2023 – Current.
- Jih-Hao Wang, MSc student, National Dong Hwa University, Taiwan. Spring 2008.
- Jia-Wei, Hu, MSc student, National Dong Hwa University, Taiwan. Spring 2008.
- Yi-Jhe, Cai, MSc student, National Dong Hwa University, Taiwan. Spring 2008.

**INTERNATIONAL VISITING STUDENTS**

- Yat Hin Boris Cheung, Undergraduate, Division of Life Science, Hong Kong University of Science and Technology. Hong Kong – Spring 2019.
- Paul Moritz List, Graduate student, Biochemistry Program, University of Leipzig, Germany – Spring 2018.
- Anderson Costa, Undergraduate, Department of Biological Sciences, Federal University of Amapa, Brazil – Summer 2013.
- Chun-Jen Hsio, PhD student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Spring – Summer 2013.
- Tso-Hao Tang, PhD student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Spring – Summer 2013.
- Chen-Ming Hsu, MSc student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Spring – Summer 2012.
- Ching Chang, MSc student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Spring – Summer 2011.
- Hsiang-Yu Wang, MSc student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Spring – Summer 2010.
- Tien-Chun Wang, MSc student, Department of Biological Sciences, National Taiwan Normal University, Taiwan. Summer 2009 – Spring 2010.

**OTHER OUTREACH ACTIVITIES**

- 2023 – S&T Admitted Student Reception in St. Louis
- 2021 – Current. Missouri S&T representative to the Acute Effects of Neurotrauma Consortium Board.
- 2021 – Current. Advisor. Missouri S&T Taiwanese Student Association
- 2022 Fall. Judge, Missouri S&T Biomedical Engineering Design Team Competition
- 2019. S&T Freshman Luncheon Programs

- 2018, Judge, Missouri Junior Academy of Science, student science project competitions
- 2016/2018. Advisor, Department Senior Seminar service projects
- 2015 – Current. Invite alumni during their homecoming visits to share their career experiences in my classes. This is to 1) create employment opportunities for students in alumni’s institutes and 2) facilitate alumni’s affinity for the future development of the department
- 2008 – 2013. Advisor, Missouri S&T Chi Alpha Campus Ministries

## **PUBLIC MEDIA EXPOSURE**

1. Jan. 17, 2014. Wissenschaft Aktuell (Current Science). Toxisch: Wie gefährlich sind Nanoteilchen aus Metalloxiden? The report covered my research in the area of nanotoxicology. Note: the story was later selected as one of the 14 S&T Important Research Stories of 2014.
2. May-June, 2008. “The Hellbender” in Nick Baker’s Weird Creature. BBC.
3. June, 2005. Wildlife Conservation Magazine. “The hellbender needs help”, pages 51-54.
4. Feb. 12, 2005. 30-minute broadcast of hellbender research on Public Broadcasting System (PBS). Film provided by MDC.
5. Oct. 25, 2004. Columbia Daily Tribune, “Team of biologist hell-bent on saving fading salamanders”, page 2A.
6. Oct. 24, 2004. St. Louis Post-Dispatch, “Scientists seek to save once-thriving hellbender” Front page, A12-A13. The story was later picked up by Associated Press, Kansas City Star, and Kansas City television station KCTV-5.
7. MDC filmed the hellbender research. The video was broadcast in Missouri Outdoors TV program several times.
8. July 23, 2003. Star-Crawford Mirror in Steelville. “UMR Biologist Tries to Save the Ozark Hellbender”
9. June 18, 2003. Sullivan Independent News. “UMR Biologist Tries To Save the Ozark Hellbender”
10. June 17, 2003. Park Hills Daily Journal. “Researchers looking to save Ozark salamanders from extinction”
11. June 17, 2003. St. Louis Post-Dispatch. “Scientists Study Decline of Local Salamander – the Ozark Hellbenders”
12. June 16, 2003. Camdenton Lake Sun Leader. “On a mission for Ozark salamanders”
13. June 16, 2003. Cape Girardeau Southeast Missourian. “Researchers looking to save Ozark salamanders”
14. June 16, 2003. Moberly Monitor Index. “Researchers look to save salamanders”

15. June 16, 2003. Parksville Daily Express & News. "Researchers Fight To Save Ozark Salamanders From Extinction"
16. June 16, 2003. News-Leader in Springfield. "Hellbenders"
17. June 15, 2003. The Associate Press State & Local Wire (in Ganisville, MO). "Researchers looking to save Ozark salamanders from extinction"
18. May 30, 2003. UMR W3. "Huang's Research Could Save the Hellbender"
19. May 2003. Rolla Channel 16. Hellbender Research.
20. May 12, 2003. UMR eConnection. "Biologist Works to Save Hellbenders"
21. May 11, 2003. Rolla Daily News. "UMR Biologist Works To Save Ozark Hellbender"
22. Dec. 2002. UMR Alumni Magazine. "Saving the Hellbender."
23. March 2001. Missouri Water News by Missouri Water Resources Research Center. On Detection and biological assessment of endocrine disruptors in Missouri sewage treatment plants.