Curriculum vitae

NILESH C. SHARMA **09/05/2024**
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Education
Ph. D. (Plant Biotechnology)
Bihar University, India
Master of Science (Plant Cytogenetics)
Patna University, India
Bachelor of Science (Honors**)**
Patna University, India

Academic assignments
Senior Instructor – Department of Biology, Western Kentucky University (August 2022–continuing)
Instructor II – Department of Biology, Western Kentucky University (August 2016 – July 22.)
Instructor I – Department of Biology, Western Kentucky University (May 2006 – July 2016)
Research Scientist, Department of Biology, Western Kentucky University (May 2001 – April 2006)
Senior Lecturer**,** Department of Microbiology and Biotechnology, S.B.S. Institute of Biomedical Sciences and Research, Meerut University, Meerut, India (1998 – 2001)
Research Associate, School of Biotechnology, Banaras H. University, Varanasi, India (1992 – 1994)
Junior/Senior Research Fellow of University Grants Commission of India, India (1987 – 1992)

Class Teaching at WKU
Undergraduate courses since 2006:
Plant Biology and Diversity–Biol 222 (Lecture), Biol 223 (Lab)
Cell, Metabolism and Genetics–Biol 120, Biol 121
Cell and Molecular Biology – Biol 319, Lab 322
General Biology (Biol-113)
General Microbiology (Biol-207); Lab (Biol-208)
Upper-level undergraduate courses
Honors Colloquium: Pandemic Pandemonium (HONS 300): 2020
Honors Colloquium: Nanotechnology–Biomedical Applications (HON 300): 2012, 13
Plant Therapeutics as Alt. Therapeutics (Biol-490)- every year since 2008
Ethnobiology (Biol-390) – Colonnade Connection (Systems subcategory) – since 2018
Graduate–level courses
Plant Therapeutics (Biol-490G)- every year since 2009
Investigations in Biology (Biol-516): A dozen of students completed this coursework
Thesis (Biol-599); Independent Adv. Topics (Biol-675)

Pedagogical training & Certification

- **ACUE Training/CITL**: Completed Courses in Effective Teaching Practices (three semester-long curriculum) in 2019
- Process Orientated Guided Inquiry Learning (POGIL) webinar series 1-6 (2016)
- Blended Learning Workshop with Dr. Curtis Bonk (09/25/2015)
- Certificate of Completion of Quality Matters Peer Reviewer Course (10-day module with pass/fail) – Jan 2013
- Certificate of Completion for Applying the QM Rubric (APPQMR) 2008-12 (514) F2F dedicated (QM Program is an inter-institutional quality assurance in Online learning/courses. It involves a collegial review process where reviewers provide feedback on the course design)
- Completion of 8 full-day sessions of Workshop on Critical Thinking Foundations & Assessing Critical Thinking (8/21/2007, 9/27/2007, 3/24-25/2008; 8/22/2008; 02/13/2009; 08/2009)
- Successful Completion of Training Modules, CITI Collaborative Institutional Training Initiative: CITI training is a federal requirement in proper handling of research animals

Research Interests

My research interests broadly include problems of plant biotechnology (exploring potentials of plant or microbial systems in environmental cleanup – bioremediation), phytotherapeutics (therapeutic potential of phytochemicals) and nanotoxicology (evaluation of nanomaterial exposure toxicity using organismal models)

Completed Research Grant (student-centered research)

2023-2024 Sharma–Rivera FUSE Grant ($3500): Determining the effect of dietary flavonoids on the lifespan of *Saccharomyces cerevisiae*

2019–2021 Sharma–Leibman FUSE Grant ($3500): Using *Caenorhabditis elegans* model to study toxicity caused by Titanium Nanoparticles

2019–2020 Sharm–Foster FUSE Grant ($3500): Phytoremediation Potential of Lespedeza species

2016–2018 NSF-EPSCoR grant ($24,995): Principal Investigator – “Risk Assessment of Plant-derived, Ecofriendly Gold Nanoparticles using an Animal System”

2015–2016 Sharma-Sadrinia- FUSE Grant ($5000): The role of plant-derived gold nanoparticles in inflammatory response in lab mice

2014–2016 RCAPI Grant (Sahi - Sharma: $14,748) Co-PI – “Toxicological Evaluation of Plant-synthesized Gold Nanoparticles”

2013–2014 RCAPII Grant ($3,500): Principal Investigator – “Inflammatory response in Mice Exposed to TiO_2 Nanoparticles”

2012–2013 Sharma–Scott FUSE Grant ($5000): Principal investigator – “Studying the effect of Ga nanoparticles on inflammatory responses in mice”

2011–2012 RCAPII Grant ($10,000): Principal Investigator - “The effect of coconut oil on ulcerative colitis in a mouse model”

2011–2012 Kentucky Academy of Sciences Award for Summer Student’s Research ($3000): Principal Investigator - “Studying Effects of Plumbagin on Experimental Ulcerative Colitis”

2010–2011 WKU- Office of Sponsored Program Incentive Grant ($5,877): Principal Investigator - "Anti-inflammatory effects of plumbagin in ulcerative colitis"

2009–2010 NIH-KBRIN Grant ($9,899.00): Principal Investigator -"The effect of plumbagin on the pathogenesis of ulcerative colitis"

2005–2007 NSF-EPSCoR grant ($22000), 2005–2007: Principal Investigator - “Genetic transformation of *Sesbania drummondii* with citrate synthase gene for enhanced accumulation of heavy metals”

Endeavors to create course-based undergraduate research opportunities: I submitted the following proposals to create research opportunities for a large number of undergraduates:

- KBRIN-Course-based undergraduate research experiences (CUREs) award 2021: submitted
- The ASPB Plant Biology Learning Objectives, Outreach Materials & Education Grant, 2020 (BLOOM 2020): not funded

Research Mentorship

Undergraduate student research

Vivian Rivera – BS Honors Thesis – 2022–2024
Ty Foster – BS Honors Thesis – 2018 -continuing
Hannah Leibman – Gatton Academy of Mathematics & Science – 2018-graduated
Grayson Fuller – rising senior at Gatton Academy of Mathematics and Science – 2016-graduated
Ahmed Fadil – BS Honors Thesis – 2016 -completed
Bonny Patel – BS Honors College – 2016 -completed
Charles Towey – BS Honors Thesis – (2015-2017)-completed
Cyrus Sadrinia – BS Honors Thesis– (2014-2016)-completed
Brandon Ray – BS Biology – 2013
Scott Strecker – BS Biology – 2012–2013
Justin Pile – BS Honors Thesis- 2010-1012 (Thesis of the Year Award); Student presentation awarded at KAS annual meeting – 20011; 2012
Sujung Kim – BS (Chem)- 2009-2011 (Completed)
Annesia Lamb – Completed BS (Biol)- 2006-07 – research awarded at KAS annual meeting -2007
Reyes Quintero – Completed BS (Biol)- 2005-06 – research awarded at Sigma Xi meeting-2006
Christa Gaskil–Completed BS- 2006; Jennifer Morris- BS (Biol)-2006; Morgan Mc Gray-BS

Graduate Student Research

Camille Saunders: MA Biology (2023–continued): "Insight into the molecular mechanisms of multiple sclerosis pathophysiology"
Mariam Kitto: MA Biology (2021-2023), "Investigating the Role of Dietary Polyphenols in the Management of Viral Infections Including COVID-19"
Rubani Pannu: MA Biology (2023 summer), " Foods and Flavonoids: Roles in Viral Infections, Immunity and Oxidative Stress"
Ashley Cox: MA Biology (2013–2015), "Analyzing nanotitania toxicity in plants and animals"
Justin Pile: MA Biology (2012–2013), "Role of plumbagin in a mouse model of ulcerative colitis"
Pranav Chandra: MS Biology Thesis (August 2010-May 2013), "Effect of coconut oil on ulcerative colitis in a mouse model" – Awarded at KAS Annual Meeting, 2011; 2012
Shaughnessy-Begay, A: Research Internship (August 2008 - May 2009) – Use of Burdock and Plantain Leaves in the Healing of Burn Wound Injury by Amish and Mennonite Populations: An Evaluation for the Antimicrobial Efficacy" – completed

Online Graduate Student Advisor

Mary Beth Ping – 2013-14
Charity Jackson – 2013-14
Ashley Cox – 2013-14
Justin Pile – 2012-13

Publications with WKU students (*student; @ book chapter)

1. *Cox, A., *Chandra P., Sharma, N. 2021. @Application of titanium dioxide nanoparticles in consumer products raises human health concerns – Lessons from murine models of toxicity- In: Nanomaterial Biointeractions at the Cellular, Organismal and System Levels (Eds. Nilesh Sharma & Shivendra Sahi); Springer–Nature, Switzerland.
2. Cox, A., Sharma, N. 2021. *Caenorhabditis elegans* – @A Unique Animal Model to Study Soil–Nanoparticles–Organism Interactions. 2021. In: Nanomaterial Biointeractions at the Organismal and System Levels (Eds. Nilesh Sharma & Shivendra Sahi); Springer–Nature, Switzerland.
3. *Cox, A.; Venkatachalam, P.; Sahi, S.; **Sharma, N**. 2016. Silver and titanium dioxide nanoparticle toxicity: A review of current research. *Plant Physiol Biochem*, 107, 147-163.
4. *Pranav Chandra: **Sharma**, **N**. Doerner, K.C., Alok, P.C. and Choudhary, M. 2015. Skatole remediation potential of *Rhodopseudomonas palustris* WKU-KDNS3 isolated from an animal waste lagoon. *Letters in Applied Microbiology* 60 (3) 298–306
5. *A. Esterle: Krishnamurthy, S., Esterle, A. **Sharma, N.C**. and Sahi, S.V. 2014. Yucca-derived synthesis of gold nanomaterial and their catalytic potential. Nanoscale Research Letters, 9:627
6. *Pile, Justin: Justin, P., Navalta, J., Davis, C., Sharma N.C. 2013. Interventional effect of plumbagin in experimental ulcerative colitis in mice. *Journal of Natural Products* 76, 1001-1006.
7. *Daniel Starnes: Sharma, N.C., Starnes, D. L., Sahi, S.V. 2007. Phytoextraction of excess soil phosphorus. *Environmental pollution* 146, 120-127.
8. *Thomas Ruley: Ruley, A.T., **Sharma, N. C.**, Sahi, S. V. and Singh, S. R. 2006. Effects of lead and chelators on growth, photosynthetic activity and Pb uptake in *Sesbania drummondii* grown in soil. *Environmental pollution* 144 (1), 11-18.

Invited Research Presentation

- Presented a synchronous talk via Zoom (June 24, 2020) on “Functional Food in Managing the 21st. Century Health Conditions” at the International Webinar on “Prospects of Natural Products on Human Health in Current Scenario” hosted by Banaras H University, India
- Gave a live talk (January 2020): “Functional Food: Implications in Health & Disease” hosted by the Western Kentucky Heart & Lung Research Foundation and Educational Trust, Bowling Green, KY
- Sam Houston State University, Huntsville, TX, (Seminar Series) "Plant-mediated Fabrication of Gold Nanoparticles – A Green Nanotechnology" (March 2015).

Professional Membership

- American Association of Immunologists
- American Society of Plant Biologists, ASPB
- Kentucky Academy of Sciences, KAS

Service

- Biology Department Undergraduate Thesis committee
- Biology PR/Recruitment Committee
- Biology Department Graduate Student Thesis Committee
- Biology Department Promotion & Tenure Subcommittee
- Faculty Search Committee
- University Pre-Dental Society (Faculty advisor)
- Online Graduate Student Academic Advising Committee
- Undergraduate students advising
- Biology Department Biology (113) & Biology (207) Courses – Digital Media Adoption

Reviewer of peer-reviewed research journal/grant proposal

- Grant proposal of The U.S. Civilian Research & Development Foundation
- Grant proposal (0.6 Million pounds) of BBSRC, UK
- Industrial Crops and Products
- BMC Complementary and Alternative Medicine
- Journal of Natural Products
- Plant Physiology and Biochemistry
- Journal of Pharmaceutical Sciences
- Panel Reviewer of EPA Science to Achieve Results (STAR) Graduate Fellowship Program
- Journal of Scientific Reports (NPG)
- Journal of Environmental Science & Pollution
- Journal of Environmental Science and Technology

Ph.D. Dissertation Examiner: Appointed as Doctoral Thesis Examiner for

- University of Calcutta, India, 2019
- Central University of Punjab, India, 2020

Book Editor - "Nanomaterial Biointeractions at the Cellular, Organismal and System Levels" – Eds.: Nilesh Sharma, Shivendra Sahi; Springer–Nature, Switzerland, 2021. This is the compilation of original works in the form of a book contributed by leading researchers in the field of nanotechnology, chemistry, biology and biotechnology. https://link.springer.com/book/10.1007/978-3-030-65792-5

Patent Application 2021: "Metallic Nanoparticles and Methods of Making and Using the Same" in collaboration with WKU & University of Sciences, Philadelphia

Publications (* indicates student coauthors; peer-reviewed journals italicized)
Overall Research Impact: Citations=1900, RG Score=28.73, *h*-index=19, as tracked by Research Gate

38. James Elste, Sangeeta Kumari, **Nilesh Sharma**, Erendira Razo , Eisa Azhar , Feng Gao, Maria Nunez, Wasim Anwar, John Mitchel, Vaibhav Tiwari, and Shivendra Sahi. Plant Cell-engineered gold nanoparticles conjugated to quercetin inhibit SARS-CoV-2 and HSV-1 entry. Int. J. Mol. Sci. 2023, 24, 14792. https://doi.org/10.3390/ijms241914792
37. Prakasha, V., Rai, P., **Sharma, N. C**., Singh, V. P., Tripathi, D. K., Sharma, S., Sahi, S. Application of zinc oxide nanoparticles as fertilizer boosts growth in rice plant and alleviates chromium stress by regulating genes involved in oxidative stress. Chemosphere 303, Part 1, September 2022, https://doi.org/10.1016/j.chemosphere.2022.134554

36. Rawat, S., Cota-Ruiz, K., Dou, H., Pullagurala, V.L.R., Zuverza-Mena, N., White, J.C., Niu, G., **Sharma, N**., Hernandez-Viezcas, J., Peralta-Videa, J.R. and Gardea-Torresdey, J.L. 2021. Soil- weathered CuO nanoparticles compromise foliar health and pigment production in spinach (*Spinacia oleracea*). *Environmental Science & Technology*, DOI: 10.1021/acs.est.0c06548
35. Kumari, S., **Sharma, N**., Sahi, S.V. 2021. Advances in cancer therapeutics: conventional thermal therapy to nanotechnology-based photothermal therapy. *Pharmaceutics*, 13, 1174. https://doi.org/10.3390/pharmaceutics13081174
34. Kumari, S.; Singh, R.P., Chavan, N.N., Sahi, S.V., **Sharma, N**. 2021. Characterization of a novel nanocomposite film based on functionalized chitosan–Pt–Fe3O4 hybrid nanoparticles. *Nanomaterials* 11, 1275. https://doi.org/10.3390/nano11051275
33. Cox, A.*, **Sharma, N.** 2020. *Caenorhabditis elegans*: A unique animal model to study soil- nanoparticles-organism interactions, In Nanomaterial Biointeractions at the organismal and System Levels (Eds: Sharma & Sahi), Springer Nature Switzerland AG
32. Cox, A.*, Chandra, P*., **Sharma, N**. 2020. Application of Titanium dioxide nanoparticles in consumer products raises human health concerns: Lessons from murine models of toxicity. In Nanomaterial Biointeractions at the Organismal and System Levels (Eds: Sharma & Sahi), Springer Nature Switzerland AG
31. Bhaskaran, S., **Sharma, N.C.**, Tiwari, P., Singh, SR., Sahi, S.V. 2019. Fabrication of innocuous gold nanoparticles using plant cells in culture. *Scientific Reports* 9, 12040: (2019) 9:12040 | https://doi.org/10.1038/s41598-019-48475-9
30. Arif, N., **Sharma, N.C**., Yadav, V., Ramawat, N., Dubey, N.K., Tripathi, D.K., Chauhan, D.K., Sahi, S. V. 2019. Understanding heavy metal stress in a rice crop: toxicity, tolerance mechanisms, and amelioration strategies. *J. Plant Biol*. 62:239-253.
29. Tiwari, M., **Sharma, N.C**., Fleischmann, P.*, Burbage, J.*****, Venkatachalam, P., Sahi, SV. 2017. Nanotitania exposure causes alternation in physiological, nutritional and stress responses in tomato (*Solanum lycopersicum*). *Front. Plant Sci*. 8:633. doi: 10.3389/fpls.2017.00633
28. Venkatachalam, P.; Jayaraj, M.; Manikandan, R.; Geetha, N.; Rene, E.R.; Sahi, S. V.; **Sharma, N. C**. 2017. Zinc oxide nanoparticles alleviate heavy metal-induced toxicity in *Leucina leucocephala* seedlings: A physicochemical analysis. *Plant Physiol. Biochem*. 110, 59- 69.
27. Venkatachalam, P.; Jayalakshmi, N.; Geetha, N.; Sahi, S. V.; **Sharma, N. C**.; Rene, E.R.; Sarkar, S.K.; Favas, P.J.C. 2017. Accumulation efficiency, genotoxicity and antioxidant defense mechanisms in medicinal plant *Acalypha indica* L. under lead stress. *Chemosphere* 171, 544-553.
26. Tripathi, D.K., Singh, S.S., Singh, S., Pandey, R., Singh, V.P., **Sharma, N.C**., Prasad, S.M., Dubey, N.K. 2017. An overview on manufactured nanoparticles in plants: Uptake, translocation, accumulation and phytotoxicity. *Plant Physiol. Biochem*. 110, 2-12.
25. Cox, A.*****; Venkatachalam, P.; Sahi, S.; **Sharma, N**. 2017. Silver and titanium dioxide nanoparticle toxicity: A review of current research. *Plant Physiol Biochem*, 107, 147-163.
24. Tiwari, M., S. Krishnamurthy, D. Shukla, J. Kiiskila, A. Jain, R. Datta, **N. Sharma**, S. Sahi. 2016. Comparative transcriptome and proteome analysis to reveal the biosynthesis of gold nanoparticles in Arabidopsis. *Scientific Reports* 6:21733.
23. **Sharma**, **N**. Doerner, K.C., Alok, P.C.***** and Choudhary, M. 2015. Skatole remediation potential of *Rhodopseudomonas palustris* WKU-KDNS3 isolated from an animal waste lagoon. *Letters in Applied Microbiology* 60 (3) 298–306
22. Krishnamurthy, S., Esterle, A.***** **Sharma, N.C**. and Sahi, S.V. 2014. Yucca-derived synthesis of gold nanomaterial and their catalytic potential. *Nanoscale Research Letters*, 9:627
21. Justin, P.*****, Navalta, J., Davis, C., **Sharma N.C**. 2013. Interventional effect of plumbagin in experimental ulcerative colitis in mice. *Journal of Natural Products* 76, 1001-1006
20. **Sharma, N.C.** and Sahi S. 2012. Increased organic phosphorus use promoting biomass and tissue

P hyperaccumulations in *Lolium multiflorum* grown in sterile media. *Environmental Science & Technology* 45, 10531–10537

19. **Sharma, N.C.** and Sahi S. 2011. Excess soil phosphorus – accelerated P transfer, water quality deterioration and sustainable remediation strategies. In: Improving Crop Resistance to Abiotic Stress, Eds. N. Tuteja, A. Tiburcio, S. Gill, and R. Tuteja, Wiley-VCH Verlag GmbH & Co. KGaA. Pp.165-191
18. **Sharma, N.C**., Sahi, S.V., Nath, S., Parsons J.G., Gardea- Torresdey, J.L. and Pal, T. 2007. Synthesis of plant-mediated gold nanoparticles and catalytic role of biomatrix-embedded nanomaterials. *Environmental Science & Technology* 41 (14), 5137–5142
17. **Sharma, N.C**., Starnes, D. L.*****, Sahi, S.V. 2007. Phytoextraction of excess soil phosphorus. *Environmental pollution* 146, 120-127.
16. Ruley, A.T.*****, **Sharma, N. C.**, Sahi, S. V. and Singh, S. R. 2006. Effects of lead and chelators on growth, photosynthetic activity and Pb uptake in *Sesbania drummondii* grown in soil. *Environmental pollution* 144 (1), 11-18
15. **Sharma, N.C**., Sahi, S.V. 2005**.** Characterization of phosphate accumulation in *Lolium multiflorum* for remediation of phosphorus-enriched soils. *Environmental Science & Technology* 39 (14), 5475- 80
14. **Sharma**, **N.C**., Sahi, S.V., Jain, J.C. 2005. *Sesbania drummondii* cell cultures: ICP-MS determination of the accumulation of Pb and Cu and assay of antioxidative enzyme activities. *Microchemical J.*, 81, 163-169
13. **Sharma**, **N.C**., Sahi, S.V. 2005. Physiology of lead accumulation and tolerance in a lead accumulating plant (*Sesbania drummondii*). In *Trace Elements in the Environment*: *Biogeochemistry, Biotechnology and Bioremediation*. Eds. Prasad, M.N.V., Naidu, R., Sajwan, K. CRC Press, Boca Raton, FL. pp. 425-438
12. **Sharma, N.C**., Sahi, S.V., Jain, J.C., Raghothama, K.G. 2004. Enhanced accumulation of phosphate by *Lolium multiflorum* cultivars grown in phosphate-enriched medium. *Environmental Science & Technology*, 38, 2443-2448.
11. **Sharma**, **N.C**., Gardea-Torresdey, J.L., Parsons, J., Sahi, S.V. 2004. Chemical speciation and cellular deposition of lead in *Sesbania drummondii*. *Environmental Toxicology & Chemistry*, 23 (9), 2068-2073 Ruley A.T.*****, **Sharma N.C**., Sahi, S.V. 2004. Antioxidant defense in a lead accumulating plant, *Sesbania drummondii*. *Plant Physiology and Biochemistry*, 42 (11), 899-906
9. Sahi, S.V., **Sharma**, **N.C**. 2004. Phytoremediation of Lead. In *Trace and Ultratrace Elements in Plants and Soil*. Ed. Shtangeeva, I. WIT Press, Boston/ Southampton, UK. pp. 209-217 Cheepala, S.B.*****, **Sharma**, **N.C**. Sahi, S.V. 2004. Rapid in vitro regeneration of *Sesbania drummondii*: a leguminous shrub of medicinal importance. *Biologia Plantarum*, 48 (1), 13-18.
8. **Sharma, N.C**., Jain, J., Sahi, S.V. 2003. Evaluation of phosphate phytoremediation potential of ryegrass. *Proceedings of 2nd International. Agronomy Congress: Balancing food and environment security*, New Delhi, India, November, 2002, pp. 1009-1010.
7. Ruley, T.*, **Sharma**, **N.C.,** Sahi, S.V. 2003. Transport and Sequestration of Lead in *Sesbania drummondii*. *of 7th International Conference on the Biogeochem. of trace elements*, Uppsala, Sweden, June 2003, pp. 194-195.
6. Sahi, S.V., **Sharma, N.C**., Bryant, N.L., Singh, S.R. 2002. Characterization of a lead hyperaccumulator shrub, *Sesbania drummondii*. *Environmental Science & Technology*, 36, 4676- 4680.
5. Deepti, M.*****, **Sharma**, **N.C**., Cristae, P., Sahi, S.V. 2002. Transformation of maize by 2,4, dihydroxy–7-methoxy-2H-1,4-benzoxazin-3(4H)-one resistant *Agrobacterium* strains. *Biotechnology Letters*, 24, 197-203.
4. Boswell, C.*****, **Sharma**, **N.C**. and Sahi, S.V. 2002. Copper–tolerance and - accumulation potential of *Chlamydomonas reinhardtii. Bulletin of Environmental Contamination and Toxicology*, 69, 546- 553.
3. Raikhy, G**., Sharma**, **N.C**. and Gupta, S. 2001. Dairy waste water: a resource for single cell

protein production by yeast. *Pollution Research*, 18 (2), 112-117.

2. Tiwari, K.N., **Sharma, N.C**., Tiwari, V., Singh, B.D. 2000. Micropropagation of *Centella asiatica* (L.), a valuable medicinal herb. *Plant Cell Tissue & Organ Culture*, 63 (3), 179-185.
1. Koijam, B., **Sharma, N.C.** and Gupta, S. 2000. Production and characterization of fungal cellulases from lignocellulosic wastes. *Asian J. Micro. Biotechnol. Env. Sci.* 4 (3-4), 113-120.

Presentations in National/Regional meetings (* indicates student coauthors)

24. Vivian Rivera, Joseph Marquardt and Nilesh Sharma, 2024. Dietary Flavonoids Affect Growth in *Saccharomyces cerevisiae*. KY INBRE Annual Research Conference, Lexington, March 2024
23. Vivian Rivera, Joseph Marquardt and Nilesh Sharma, 2023. Effect of Dietary Flavonoids on Growth in *Saccharomyces cerevisiae*. Kentucky Academy of Science Annual Meeting, NKU, Nov 2023
22. Tyler Foster* and Nilesh Sharma, 2020. Phytoremediation Potential of *Lespedeza cuneata*. Kentucky Academy of Science Annual Virtual Meeting, Nov 6-7, 2020
21. Cyrus Sadrinia*, Hannah Leibman* and Nilesh Sharma, 2020. How safe is the application of nanotitania when it can induce inflammatory response, affect liver function or body weight in animal models? Annual Meeting of the American Association of Immunologists, 2020, Hawaii
20. Hannah Leibman and Nilesh Sharma, 2019. How does the exposure of Titanium dioxide nanoparticles affect the life cycle and gene expression in Caenorhabditis elegans? Kentucky Academy of Science Annual Meeting, Berea College, 2019
19. Nilesh Sharma (presenter), P. Fleischmann*, Towey, Charles* and S. Sahi, 2017. Physiological, nutritional and stress responses in tomato plant exposed to TiO_2 nanoparticles. International Conference on the Biogeochemistry of Trace Elements (ICOBTE), July 16-20, 2017, Zurich, Switzerland
18. Fadil Ahmed*, Shivendra Sahi, Nilesh Sharma, 2017. Phytosynthesis, transcriptomic interaction and toxicity of gold nanoparticles. Annual Meeting of American Society of Plant Biologists, June 23-28, 2017, Honolulu, Hawaii
17. Sadrinia, Cyrus*, Sharma, N.C. 2016. Comparative evaluation of inflammatory responses in mice exposed to gold nanoparticles of biological and chemical origins. Annual Meeting of the American Association of Immunologists, May 13-17, 2016, Seattle, WA
16. Fleischmann, P.*, Sharma, N.C**.**, Sahi, S.V. 2015. Effect of titanium dioxide nanoparticles on the growth, photosynthetic efficiency, and oxidative Stress in Food Crops, March 21-22, 2015. American Society of Plant Biologists (Midwestern section), St Louis, USA
15. Sadrinia, C.*, Sharma, N.C. 2014. Does Exposure to TiO_2 Nanoparticles Trigger Inflammatory Response in Mice? Annual Meeting of Kentucky Academy of Sciences, Nov. 14-16, 2014, Lexington, KY
14. Strecker, R.*, Ray, B., Sharma, N.C. 2013. Inflammatory responses in mice exposed to multiple doses of TiO_2 nanoparticles. Annual Meeting of the American Association of Immunologists, May 3-7, 2013, Honolulu, Hawaii
13. Chandra, P.* and Sharma N.C. 2012. Bioaccumulation and effects of gold nanoparticles after their prolonged administration in mice. 5th. Annual Nanotechnology Symposium, Sullivan University College of Pharmacy, Sept. 20-21, 2012. Louisville
12. Chandra, P.*, Sharma, N.C. 2012. Effect of coconut oil in the chronic model of ulcerative colitis. 98th. Annual Meeting of Kentucky Academy of Sciences, Oct. 19-20, 2012. Richmond (KY)
11. Pile, J.*, Sharma, N. C. 2011. Studying the effect of plumbagin in ulcerative colitis in mice. 97th. Annual Meeting of Kentucky Academy of Sciences, Nov 4-5, 2011. Murray (KY)
10. Chandra, P.*, Sharma, N.C. 2011. Effect of coconut oil in the experimental model of ulcerative colitis. 97th. Annual Meeting of Kentucky Academy of Sciences, Nov 4-5, 2011. Murray (KY)
9. Pile, J.*, Kim, S., Sharma, N. C. 2010. Studying effects of plumbagin in ulcerative colitis

pathogenesis in mice. 96th. Annual Meeting of Kentucky Academy of Sciences, Nov 12-13, 2010. Bowling Green (KY)

8. Lamb, Annesia.*, Sharma, N.C. 2007. Cell and tissue culture of a lead accumulating shrub, *S. drummondii*. 2007 PMBB research symposium, The Ohio State University, March 30-31, 2007. Columbus (OH)
7. Sharma, N.C., Paul, P.*, Sahi, S.V. 2006. Phosphatase activities and assimilation of organic phosphorus in *Lolium multiflorum* grown *in vitro*. *International annual meeting, American Society of Plant Biologists*, Aug.5-9, 2006. Boston, MS, USA
6. Sharma, N.C., Sahi, S.V. 2005. Evaluation of organic phosphorus assimilation in *Lolium multiflorum*. *International annual meeting, American society of Agronomy*, *Crop science society of America & Soil science society of America,* Nov. 6-10, 2005. Salt Lake City, UT, USA
5. Sharma, N.C., Sahi, S.V. 2004. Could phytoremediation be used to remove excess phosphorus from soil? *International annual meeting, American society of Agronomy*, Oct 31-Nov 4, 2004. Seattle, Washington
4. Sharma, N.C., Sahi, S.V. 2004. Strategy for phosphate phytoremediation. *4th International Phosphorus Workshop*, August 16-19, 2004. Wageningen, The Netherlands.
3. Ruley, T.*, Sharma, N.C., Sahi, S.V. 2003. Transport and sequestration of lead in *Sesbania drummondii*. *7th International Conference on the Biogeochem. of trace elements*, June 2003, Uppsala, Sweden.
2. Sharma, N.C., Sahi, S.V. 2003. Evaluation of crops for phosphate accumulation potential (poster). *International annual meeting, American society of Agronomy*, Nov 2-6, 2003. Denver, Colorado, USA