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EDUCATION

Post-doc (2013-14)	**United States Environmental Protection Agency, Corvallis, OR/ National Research Council of the National Academies** Toxicology & Risk Assessment
Ph.D. (2009-13)	**East Tennessee State University, Johnson City, TN, USA** Environmental Health (Toxicology & Risk Assessment)
M.S. (2007-09)	**East Tennessee State University, Johnson City, TN, USA** Biology (Quantitative Biology)
M.Sc. (1999-2001)	**Postgraduate Campus, Tribhuvan University** Zoology
B.Sc. (1996-99)	**Mechi Multiple College, Tribhuvan University** Major: Zoology; Minor: Chemistry; Valedictorian

POSITIONS AND EMPLOYMENT

Position	Rank	Appointments
Program Director	Program Director for PHFP Certificate	2021 - Present
Tenure-Track	Assistant Professor of Toxicology	2018 - present
Non-Tenure Track	Assistant Professor of Env. Health	2014 - 2018
Postdoctoral Fellow	Postdoctoral Fellow	2013 - 2014
Graduate Research Assistant	Graduate Research Assistant	2009 - 2013
Graduate Teaching Assistant	Graduate Teaching Assistant	2007 - 2009
Biology Lab. Technician	Biology Lab. Technician	Summer 2008
Zoology Lecturer	Lecturer	2003 - 2007
Assistant Head of House/Hostel	Assistant Head	2004 - 2007
Coordinator, Journalism Club	Coordinator	2004 - 2007
Vice Principal	Vice Principal	2001 - 2003
Science Instructor	High School Science Instructor	1994 - 2003

LEADERSHIPS, HONORS & AWARDS

1. **Mentor**, NC GSK Research Summer Immersion Program, Summer **2023**
2. **Trendsetter Award Nominee**, Chancellor's Research and Scholarship Award Ceremony 2023; Murphy Center, March 5, **2023**.
3. **NSF-funded I-Corps Spring 2023 Cohort**, East Carolina University, Spring **2023** ($5000).
4. **Lead Guest Editor**, *Toxics* (MDPI), Special Issue: Deciphering Toxicology of Nanomaterials and Sustainable Nano-Based Products; **2023 – Present**.
5. **Lead Guest Editor**, *Journal of Xenobiotics* (MDPI), Special Issue: Sustainable Nanotechnology and Nano-based Product Development; **2023 – Present**.
6. **2022 Health Sciences Author Award**, presented by Laupus Library 2022 Health Sciences Authors Recognition Award Ceremony, Towne Bank Tower, East Carolina University.
7. **Most Valuable Professor (MVP)**, East Carolina University Volleyball Program, Nov. 6th, **2022**, Minges Coliseum, East Carolina University.
8. **Co-chair, DrPH EOH Ad-hoc Steering Committee**, East Carolina University, Spring-Fall **2022.**
9. **NC Bioneer Venture Challenge Finalist**, March **2022**, selected as one of three finalists from eastern North Carolina.
10. **NSF-funded I-Corps Spring 2022 Cohort**, East Carolina University, Spring **2022** ($5000).
11. **Educators Hall of Fame Inductee**, ECU College of Education, November **2021**.
12. **Program Director, PHFP Certificate Program,** East Carolina University, October **2021**.
13. **NSF-funded I-Corps Biomedical Cohort**, East Carolina University, Summer **2021** ($3000).
14. **2021 Health Sciences Author Award**, presented by Laupus Library 2021 Health Sciences Authors Recognition Award Virtual Ceremony, East Carolina University.
15. **Council Member** (elected) for National Environmental Health, Science and Protection Accreditation Council (EHAC), **2021-2024**.
16. **Editorial Board Member**, Plants (MDPI), **2020 - Present**
17. **Advisor**, BHORE Nepal, **2020-Present**
18. **Editorial Board Member**, EC Nutrition (ECronicon), **2017 - 2021**
19. **Judge**, Research and Creative Activity Week (RCAW), ECU, **2019, 2020, 2021, 2022**.
20. Nominated **Council Member** for National Environmental Health, Science and Protection Accreditation Council (EHAC), 2020 and **2021**
21. **Panel Member/Reviewer** appointed for ASPPH Objective Review for the *2018 CDC Public Health Fellowship Program*, **Feb. 2018-Present**
22. **2020 Innovations Pitch Competition Finalist,** American Society of Tropical Medicine & Hygiene (ASTMH), October 2020.
23. **NSF Early Career Investigator Award**, presented by Sustainable Nanotechnology Organization (SNO), November 12th, 2020.
24. **2020 Health Sciences Author Award**, presented by Laupus Library 2020 Health Sciences Authors Recognition Award Virtual Ceremony, East Carolina University.
25. **Honored Instructor Award** 2019, Campus Living and the Residence Hall Association (RHA) East Carolina University, April 15th, 2019

26. **Innovation Award** 2019, Inaugural Innovation & Entrepreneurship @ RCAW-ECU. April 5th, 2019.
27. **NSF-funded I-Corps Spring 2019 Cohort**, East Carolina University, Spring 2019 ($3000).
28. **Recognized Reviewer**, Environmental Research (Elsevier), July 2018
29. **Judge**, 2018 Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, Temple University, Philadelphia, PA, April 10, 2018
30. **Outstanding Reviewer Award**, 2017 by Elsevier's Science of the Total Environment
31. **Chair** (Appointed), Awards and Merit Committee, Dept. of Epidemiology & Biostatistics., College of Public Health, Temple University, Oct. 2017 – June 2018
32. **Outstanding Research**, selected for Sci-Mix Presentation by the *ACS Colloidal Chemistry* at the 254th ACS National Meeting, Washington, DC, Aug. 20-24, 2017.
33. **Merit Award** 2015, 2016, 2017, Temple University
34. **Undergraduate Teaching with Technology Faculty Fellow Award**, Spring 2017
35. **Judge**, Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, University of the Sciences, Philadelphia, PA, March 27, 2017
36. **Judge** College of Public Health Research Day, Temple University, Philadelphia, April 21, 2017
37. **Judge**, Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, University of the Sciences, Philadelphia, PA, Feb. 22, 2016
38. **Judge and Abstract Reviewer**, College of Public Health Research Day, Temple University, Philadelphia, April 20, 2016
39. **Outstanding Reviewer Award**, 2015 by Elsevier's Science of the Total Environment
40. **Judge**, Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, University of the Sciences, Philadelphia, PA, March 31st, 2015
41. **Judge and Abstract Reviewer**, College of Public Health Research Day, Temple University, Philadelphia, April 28, 2015
42. **National Research Council (NRC)/US EPA Post-Doctoral Research Associateship Award**, 2013
43. **NEHA/CDC Best Student Research Competition Award** 2012, AEHAP, San Diego, CA ($1500)
44. **Adventus Americas Best Platform Presentation Award** 2011, Amherst, MA ($1000)
45. **Outstanding Student of the Month**, **Association of Environmental Health Academic Programs (AEHAP) & the National Environmental Health Science and Protection Accreditation Council (EHAC), Sept 2011**
46. **Graduate Research Council Grant Award**, East Tennessee State University, 2009 ($500)
47. **First Place Award**, Appalachian Student Research Forum, TN, 2008 ($150)
48. **Ghanashyam Memorial (Silver Medal) Award**, graduated as Valedictorian in B.Sc. Program, 1999 (NRs.2000)
49. **Best Personality Teacher Award**, 2006, Budhanilkantha Higher Secondary School, Kathmandu

50. **Travel Award**, Office of Research and Sponsored Programs, East Tennessee State University ($400)
51. **Travel Award**, Graduate and Professional Student Association (GPSA) 2012 ($250)
52. **Travel Award**, Gordon Research Conference 2011, Waterville Valley, NH ($750)
53. **Travel Award**, Office of Research and Sponsored Programs, East Tennessee State University to attend Gordon Research Conference, 2011 ($1,200)
54. **Travel Award**, Graduate and Professional Student Association (GPSA) 2011, East Tennessee State University ($200)
55. **M.Sc. Thesis Award**, Tribhuvan University, 2001 (NRs. 5000)

PATENTS AND SCHOLARLY PUBLICATIONS (Total 124)

Patents Submitted: Total 5

1. **Pokhrel LR** (ECU). "Nanotechnology-based Pesticides and Intermediates, Compositions and Treatments Using the Same." **European Regional Phase Application** No. 21744759.8; Filed March 03, **2023** [Based on PCT/US2021/014343 (ECU Ref. TT2007; 190412-00012EP)].
2. **Pokhrel LR** (ECU). "Nanotechnology-based Pesticides and Intermediates, Compositions and Treatments Using the Same." **US Patent Application** No. 17/759,260; Filed July 21, **2022** [Claiming Priority to U.S. Provisional Patent Application No. 62/964,368; Filed January 22, 2020].
3. **Pokhrel LR** (ECU). "Nanotechnology-based Pesticides and Intermediates, Compositions and Treatments Using the Same." **International Patent Application** No. PCT/US2020/014343; Filed January 21, **2021** [Claiming Priority to U.S. Provisional Patent Application No. 62/964,368; Filed January 22, 2020]; Pages 1-46.
4. **Pokhrel LR** (ECU). "Corona-decorated Nanoparticles as Antiviral Agents Against SARS-CoV-2, and Intermediates, Compositions and Treatments Using the Same." **U.S. Provisional Patent Application** No. 63/042,070; Filed June 22, **2020**; Pages 1-42.
5. **Pokhrel LR** (ECU). "Nanotechnology-based Pesticides and Intermediates, Compositions and Treatments Using the Same." **U.S. Provisional Patent Application** No. 62/964,368; Filed January 22, **2020**; Pages 1-31.

Invention Disclosure: Total 1

6. **Pokhrel LR**, Akula, SM, Cook P. Novel miRAg-5 as a Treatment for Respiratory Syncytial Virus (RSV) Infections in Children and Elderly Patients. **ECU Invention Disclosure #IP 2303**. Submitted October 25, **2022**.

Peer-Reviewed Publications (*Graduate student author; #Undergraduate student author): Total 36

1. Yusefi-Tanha E*, Fallah S, **Pokhrel LR**, Rostamnejadi A. Addressing global food insecurity: Soil-applied zinc oxide nanoparticles promote yield attributes and seed nutrient quality in *Glycine max* L. ***Science of the Total Environment* 2023**, 876:162762. doi: 10.1016/j.scitotenv.2023.162762.
2. Nekoukhou M*, Fallah S, **Pokhrel LR**, Abbasi-Surki A, Rostamnejadi A. Foliar enrichment of copper oxide nanoparticles promotes biomass, photosynthetic pigments, and commercially valuable secondary metabolites and essential oils in dragonhead (*Dracocephalum moldavica* L.) under semi-arid conditions. ***Science of the Total Environment* 2023**, 863:160920. https://doi.org/10.1016/j.scitotenv.2022.160920
3. Dawadi P*, Odari R, Poudel RC, **Pokhrel LR**. Bhatt LR. Isolation of *Lactococcus garvieae* NEP21 from raw cow (*Bos indicus*) milk in Nepal. ***Science of the Total Environment***, 2 December **2022**, 861, 160641. https://doi.org/10.1016/j.scitotenv.2022.160641
4. Akula SM, Williams JF, **Pokhrel LR**, Bauer AN*, Rajput S, Cook PP. Cellular miR-6741-5p as a prognostic biomarker predicting length of hospital stay among COVID-19 patients. ***Viruses* 2022**, 14(12):2681. https://doi.org/10.3390/v14122681
5. Nekoukhou M*, Fallah S, Abbasi-Surki A, **Pokhrel LR**, Rostamnejadi A. Improved efficacy of foliar application of zinc oxide nanoparticles on zinc biofortification, primary productivity and secondary metabolite production in dragonhead. ***Journal of Cleaner Production* 2022,** 379, 134803. https://doi.org/10.1016/j.jclepro.2022.134803
6. Dawadi P*, Khadka C, Shyaula M, Syangtan G, Joshi TP, Pepper SH, Kanel SR, **Pokhrel LR**. Prevalence of Metallo-β-lactamases as a correlate of multidrug resistance among clinical *Pseudomonas aeruginosa* isolates in Nepal. ***Science of the Total Environment* 2022**, 850:157975. https://doi.org/10.1016/j.scitotenv.2022.157975
7. Dawadi P*, Syangtan G, Lama B, Kanel SR, Joshi DR, **Pokhrel LR**, et al. Understanding COVID-19 situation in Nepal and implications for SARS-CoV-2 transmission and management. ***Environmental Health Insights* 2022.** https://doi.org/10.1177/11786302221104348
8. **Pokhrel LR**, Williams F, Cook PP, O'Rourke D, Murray G, Akula SM. Preclinical safety and efficacy of novel SNAT against SARS-CoV-2 in a hamster model. ***Drug Delivery and Translational Research*** December 12:3007-3016, **2022.** https://doi.org/10.1007/s13346-022-01166-x. (***Selected as Best Paper, 2022***)
9. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Responses of soybean (*Glycine max* [L.] Merr.) to zinc oxide nanoparticles: understanding changes in root system architecture, zinc tissue partitioning and soil characteristics. ***Science of the Total Environment*** August, 835:155348, **2022**. https://www.sciencedirect.com/science/article/abs/pii/S004896972202441X#!
10. **Pokhrel LR**, Jacobs Z#, Dikin D, Akula SM. Five nanometer size highly positive silver nanoparticles are bactericidal targeting cell wall and adherent fimbriae expression. ***Scientific Reports*** April, 12, 6729, **2022** (**Nature).** DOI: 10.1038/s41598-022-10778-9 (https://www.nature.com/articles/s41598-022-10778-9).
11. Morris CL*, **Pokhrel LR**, Williams A, Iverson I. Understanding Factors Influencing Indicator Bacteria Sampling Outcomes in New Private Water Wells in North Carolina, USA.

***Groundwater for Sustainable Development* 2022**, 17:100759. DOI: https://doi.org/10.1016/j.gsd.2022.100759 (This work was highlighted in the April 2022 Issue of the UNC Water Institute's *North Carolina Water News* newsletter).

12. **Pokhrel LR**, Jacobs Z, Dikin D, Akula SM. Near-atomic size highly positive silver nanoparticles are bactericidal targeting cell wall and adherent fimbriae expression. Preprint, ***Research Square***, 09/01/2021. https://doi.org/10.21203/rs.3.rs-848672/v1

13. **Pokhrel LR,** Grady KD*. Risk Assessment of occupational exposure to Isoflurane anesthesia in the hospital and veterinary settings. ***Science of the Total Environment* 2021,** 783:146894. https://doi.org/10.1016/j.scitotenv.2021.146894

14. White AV*, Wambui DW*, **Pokhrel LR**. Risk Assessment of Inhaled Diacetyl from Electronic Cigarette Use Among Teens and Adults. ***Science of the Total Environment***, 30 January **2021**, 772:145486. doi:10.1016/j.scitotenv.2021.145486

15. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Root system architecture, copper uptake and tissue distribution in soybean (*Glycine max* (L.) Merr.) grown in copper oxide nanoparticle (CuONP) amended soil and implications for human nutrition. ***Plants* 2020,** 9(10):1326. DOI: https://doi.org/10.3390/plants9101326

16. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Zinc Oxide Nanoparticles (ZnONPs) as a Novel Nanofertilizer: Influence on Seed Yield and Antioxidant Defense System in Soil Grown Soybean (*Glycine max* cv. Kowsar). ***Science of the Total Environment* 2020**, 738:140240. DOI: https://doi.org/10.1016/j.scitotenv.2020.140240

17. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Zinc Oxide Nanoparticles (ZnONPs) as Nanofertilizer: Influence on Seed Yield and Antioxidant Defense System in Soil Grown Soybean (*Glycine max* cv. Kowsar). ***bioRxiv*** 2020.04.13.039644; doi: https://doi.org/10.1101/2020.04.13.039644

18. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Particle size and concentration dependent inhibition of copper oxide nanoparticles on seed yield and antioxidant defense system in soil grown soybean (*Glycine max* cv. Kowsar). ***Science of the Total Environment* 2020**, 715:136994. DOI: https://doi.org/10.1016/j.scitotenv.2020.136994.

19. Rosen MB*, **Pokhrel LR**, Weir MH. A discussion about public health, lead and *Legionella pneumophila* in drinking water supplies in the United States. ***Science of the Total Environment* 2017,** 590-591:843-852.

20. **Pokhrel LR**, Ettore N[#], Jacobs JL[#], Zarr A[#], Weir MH, Scheuerman PR; Kanel SR, Dubey B. Novel carbon nanotube (CNT)-based ultrasensitive sensors for trace mercury (II) detection in water. A review. ***Science of the Total Environment* 2017**, 574:1379-1388.

21. **Pokhrel LR**, Bacon C*, Barbour L*. Nanotechnology-enabled agriculture is the future? ***EC Nutrition* 2017**, 9.4:162-167. [Invited Editorial]

22. Ghasemi Siani N*, Fallah S, **Pokhrel LR**, Rostamnejadi A. Natural amelioration of Zinc oxide nanoparticles toxicity in fenugreek (*Trigonella foenum-gracum*) by arbuscular mycorrhizal (*Glomus intraradices*) secretion of glomalin. ***Plant Physiology and Biochemistry* 2017,** 112:227-238.

23. Andersen CP, King G, Plocher M, Storm M, **Pokhrel LR**, Johnson MG, Rygiewicz PT. Germination and early plant development of 10 plant species exposed to TiO_2 and CeO_2 nanoparticles. ***Environmental Toxicology and Chemistry*** **2016,** 35(9):2223-9; DOI: 10.1002/etc.3374.

24. Pokhrel LR, Karsai I. Long-term sub-lethal effects of low concentration commercial herbicide (glyphosate/pelargonic acid) formulation in *Bryophyllum pinnatum*. ***Science of the Total Environment*** **2015,** 538:279-287.

25. Pokhrel LR, Andersen CP, Rygiewicz PT, Johnson MG. Preferential interaction of sodium over potassium with carboxylate-functionalized silver nanoparticles. ***Science of the Total Environment*** **2014,** 490:11-18.

26. Silva TU[$], **Pokhrel LR**[$], Dubey B, Tolaymat TM, Maier KJ, Liu X. Particle size, surface charge and concentration dependent ecotoxicity of three organo-coated silver nanoparticles: General linear model-predicted and observed toxicity. ***Science of the Total Environment*** **2014**, 468-469:968-976. [$equal contribution]

27. Pokhrel LR, Dubey B, Scheuerman PR. Natural water chemistry (dissolved organic carbon, pH, and hardness) modulates colloidal stability, dissolution kinetics and antimicrobial activity of silver nanoparticles. ***Environmental Science: Nano*** **2014**, 1:45-54.

28. Pokhrel LR, Dubey B. Global scenarios of metal mining, environmental repercussions, public policies, and sustainability: A review. ***Critical Reviews in Environmental Science and Technology*** **2013**, 43(21):2352-2388.

29. Pokhrel LR, Dubey B, Scheuerman PR. Impacts of select organic ligands on the colloidal stability, dissolution dynamics and toxicity of silver nanoparticles. ***Environmental Science & Technology*** **2013**, 47 (22):12877-12885.

30. Pokhrel LR, Dubey B. Evaluation of developmental responses of two crop plants exposed to silver and zinc oxide nanoparticles. ***Science of the Total Environment*** **2013**, 452-453:321-332.

31. Pokhrel LR, Karsai I, Laughlin TF, Hamed MK. Dorsal body pigmentation and sexual dimorphism in the marbled salamander (*Ambystoma opacum*). ***Ethology Ecology and Evolution*** **2013**, 25(3):214-226.

32. Pokhrel LR, Dubey B, Scheuerman PR. Evaluation of experimental design options in environmental nano-science research. ***Expert Opinion on Environmental Biology*** **2013**, 2(2):1-6.

33. Pokhrel LR, Dubey B, Silva T, El Badawy AM, Tolaymat TM, Scheuerman PR. Rapid screening of aquatic toxicity of several metal-based nanoparticles using the MetPLATE™ bioassay. ***Science of the Total Environment*** **2012**, 426:414-422.

34. Pokhrel LR, Dubey B. Potential impact of low-concentration silver nanoparticles on predator-prey interactions between predatory dragonfly nymphs and *Daphnia magna* as a prey. ***Environmental Science & Technology*** **2012**, 46(14):7755-7762.

35. Pokhrel LR, Dubey B. Untangling species sensitivity paradox in environmental research. ***Expert Opinion on Environmental Biology*** **2012**, 1(2):1-2. [Invited Editorial]

36. **Pokhrel LR**, Dubey B, Scheuerman PR. Pharmaceuticals in the aquatic environment: A critical appraisal of uncertainty and knowledge gaps in human health risk assessment. ***Nesaj Patra*** **2011**, 8(1):4-13.

Manuscript in progress: Total 13

1. Akula SM, **Pokhrel LR**, et al. Deciphering improved changes in lung pathophysiology in SARS-CoV-2-infected hamsters treated with two doses of nebulized SNAT.
2. Knowles CA*, **Pokhrel LR**. Food packaging decontamination with novel nano-antimicrobial.
3. Knowles CA*, **Pokhrel LR**, et al. Food packaging decontamination and the role of nanotechnology: Current science, challenges, and path forward.
4. **Pokhrel LR**. Novel nanotechnology-based NoPest-Ag5 effectively kills mosquitos and is safer to honey bees, *Apis mellifera* L.
5. Warner S*, **Pokhrel LR**. Protecting global honey bees from *Varroa destructor* infestation: Current science, challenges and opportunities.
6. **Pokhrel LR**. Safety assessment of novel NoPest-Ag5 that effectively kills mosquitos on aquatic species.
7. **Pokhrel LR**. Safety assessment of novel NoPest-Ag5 that effectively kills mosquitos on multiple crop plants.
8. **Pokhrel LR**. Environmental fate of novel NoPest-Ag5 in aquatic and terrestrial systems.
9. Davis A*, **Pokhrel LR**. Risk assessment of heavy metals from electronic cigarette use among teens and adults.
10. Abioro E*, **Pokhrel LR**, Kearney GD. Multi-source exposure assessment of lead in North Carolina homes.
11. Ubah CS*, Williams J*, **Pokhrel LR**. Mitigating *E. coli* and *Pseudomonas aeruginosa* associated hospital acquired infections with NH_2-AgNPs.
12. Suarez CA*, **Pokhrel LR**, Humphrey CP, O'Driscoll M, Lee J. Surface functionalized electrically conductive membranes for aqueous 1,4-Dioxane removal.
13. **Pokhrel LR**, Andersen C, et al. Surface charge mediated fate, transformation and toxicity of silver nanoparticles to hydroponically grown woolly sedge (*Carex pellita*: Cyperaceae): Differential responses in biotic and abiotic systems.

Textbooks: Total 3

1. **Pokhrel LR**, Acharya HN. (**2008**) Population and Environment Education - Grade VI. *Vidyarthi Publications*, Kathmandu, Nepal (Textbook for Middle School in Nepal).
2. **Pokhrel LR**, Acharya HN. (**2008**) Population and Environment Education - Grade VII. *Vidyarthi Publications*, Kathmandu, Nepal (Textbook for Middle School in Nepal).
3. **Pokhrel LR**, Acharya HN. (**2008**) Population and Environment Education - Grade VIII. *Vidyarthi Publications*, Kathmandu, Nepal (Textbook for Middle School in Nepal).

Book Chapters: Total 4

1. Kanel SR, Nadagouda MN, Nakarmi A, Malakar A, Ray C, **Pokhrel LR**. Assessment of Health, Safety and Economics of Surface Modified Nanomaterials for Catalytic Applications: A Review. Chapter 12. Edited by Gawande M, Hussain C, Yamauchi Y. ***Elsevier* 2022, eISBN 9780128236024.** https://www.elsevier.com/books/surface-modified-nanomaterials-for-applications-in-catalysis/gawande/978-0-12-823386-3
2. **Pokhrel LR,** Ubah CS*, Fallah S. Comprehensive Phytotoxicity Assessment Protocol for Engineered Nanomaterials. In: Pan X., Zhang B. (eds) ***Environmental Toxicology and Toxicogenomics***. Methods in Molecular Biology **2021**, 2326. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-1514-0_18
3. **Pokhrel LR**, Dean RL*****, Jacobs ZL[#], Burrows WB*****. Nanotechnology-enabled point-of-use (POU) filters for drinking water disinfection. In: *Characterization Tools for Nanotechnology for Environment, Health and Safety*. ***Springer-Verlag*** Book Series Vol. 10, **2019**; Editor: Challa SSR Kumar, Harvard University. Edition: Book Series Vol 10, Chapter: 7; Publisher: Springer-Verlag. DOI: https://doi.org/10.1007/978-3-662-59600-5_7
4. **Pokhrel LR**, Dubey B. Early developmental responses of plants exposed to metals and oxides nanomaterials. In: *Nanotechnology and Plant Sciences*. ***Springer-Verlag Publications*** **2015**, 153-164.

Other Research Publications (Thesis, Dissertation, Protocols): Total 3

1. **Pokhrel LR**, Andersen CP. SOP for Purification of Engineered Nanoparticles Using the Tangential Flow Filtration (TFF) System. National Health and Environmental Effects Research Laboratory, Western Ecology Division, ***USEPA***, OR. January **2015**, Pages 1-12. DCN: EEB/CA/2015-01-r0.
2. **Pokhrel LR**. Evaluation of colloidal stability and ecotoxicity of metal-based nanoparticles in the aquatic and terrestrial systems. *Ph.D. Dissertation* **2013**. *Electronic Theses and Dissertations.* Paper 1132.
3. **Pokhrel LR**. Mapping the Dorsal Skin Pigmentation Patterns of Two Sympatric Populations of Ambystomatid Salamanders, *Ambystoma opacum* and *A. maculatum,* from Northeast Tennessee. *Master's Thesis* **2009**. *Electronic Theses and Dissertations.* Paper 1501751.

Conference Presentations (Poster/ Platform Presentations: *Graduate Student Author, [#]Undergraduate Student Author): Total 82

1. Kearney GD, Bynum M*, **Pokhrel LR,** Sousan S, Imai S. Enough is Enough: Workplace Satisfaction, Well-being, and Intent to Leave Job Among Environmental Public Health Workers in the U.S. NEHA 2023 Annual Educational Conference & Exhibition, New Orleans, July 31 - August 3, **2023**. (Poster)

2. Kearney GD, Bynum M*, Sousan S, **Pokhrel LR**, Imai S, Mannarino A. How Do You Stack Up? A Profile of the Environmental Health Workforce Capacity Across the U.S. (2021). NEHA 2023 Annual Educational Conference & Exhibition, New Orleans, July 31 - August 3, **2023**. (Poster)

3. Ubah CS*, **Pokhrel LR**. Addressing hospital associated infections with novel nano-antimicrobial. 6th World nanotechnology Conference, Orlando, FL, April 24-26, **2023**. (Virtual Poster Presentation)

4. Ubah CS*, Kearney GD, **Pokhrel LR**. Risk of COVID-19 infections among patients with asthma: A scoping review. *International Scholar and Student Symposium*, ECU Blackbox Theater, April 4, **2023**. (Podium Presentation)

5. Ubah CS*, **Pokhrel LR**. Addressing nosocomial infections caused by antibiotic resistant bacteria using surface-functionalized nanoparticles. *ECU Research and Creative Achievement Week (RCAW)*, April 5, **2023**. (Poster)

6. Ubah CS*, Kearney GD, **Pokhrel LR**. Risk of COVID-19 infections among patients with asthma: A scoping review. *ECU Research and Creative Achievement Week (RCAW)*, April 5, **2023**. (Poster)

7. Knowles CA*, **Pokhrel LR,** Ubah CS. Decontamination of food packaging plastics using novel nano-antimicrobial and cool LED light. *ECU Research and Creative Achievement Week (RCAW)*, April 5, **2023**. (Poster)

8. Abioro E*, **Pokhrel LR**, Kearney GD. Multi-Source Exposure Assessment of Lead on Minority Populations and Homes in Pitt County, North Carolina. *ECU Research and Creative Achievement Week (RCAW)*, April 5, **2023**. (Poster)

9. Foley M, **Pokhrel LR**, Akula SM. Novel miRAg-5 as a therapeutic against respiratory syncytial virus (RSV). NSF I-CORPs@ECU, March 28, 2023. (Platform Presentation, Virtual).

10. **Pokhrel LR**. A novel honeybee safe ecofriendly nanopesticide, NoPest-Ag5, for *Aedes aegypti* mosquito control. 11th Sustainable Nanotechnology Organization (SNO) Meeting, Austin, TX, Nov. 11-13, **2022**. (Poster)

11. Dawadi P*, Syangtan G, Lama B, Joshi DR, Pepper SH*, Kanel SR, **Pokhrel LR**, et al. Meta-analysis of clinical *Pseudomonas aeruginosa* isolates in Nepal: Prevalence and correlation with multidrug resistance**.** *Virtual ORBCRE Symposium*. Global Change and Sustainability: Water Resources in Ohio River Basin Youngstown State University, Youngstown, OH. October 6-7, **2022**. (Invited Presentation)

12. Warner S*, **Pokhrel LR**, Richards SL. NoPest-Ag5: A non-toxic and non-ecopersistent nanotechnology-based pesticide. *Summer 2022 ECU Innovation Ambassadors Program*, July 27, **2022**. (Selected as one of two presentations out of 180 projects at ECU for Final Presentation)

13. **Pokhrel LR**. Novel NoPest-Ag5 for mosquito control. NC Bioneer Venture Challenge Competition. NC Biotechnology Center, ECU Main Students Center, May 23, **2022.**

14. Donnelly S*, **Pokhrel LR**. Making a "Go" Decision: Market Feasibility for a Novel, Low-Toxicity Household Pesticide. Poster. *Innovation and Entrepreneurship Showcase Event at RCAW*, April 8, **2022**. https://gradschool.ecu.edu/wp-content/pv-uploads/sites/118/2020/02/Innovation.png

15. Sabu S*, **Pokhrel LR**. Understanding inhibitory efficacy of novel nanobubbles and nanoparticles against nosocomial infections. Poster. *ECU Research and Creative Achievement Week (RCAW)*, April 4, **2022**. https://symposium.foragerone.com/rcaw2022/presentations/39131

16. Ubah CS*, **Pokhrel LR**. Addressing hospital associated infections with novel nano-antimicrobial. Poster. *ECU Research and Creative Achievement Week (RCAW)*, April 4, **2022**. https://symposium.foragerone.com/rcaw2022/presentations/39173

17. Williams J*, **Pokhrel LR**. Toward mitigating nosocomial infections with surface functionalized nano-antibacterial agent. Poster. *ECU Research and Creative Achievement Week (RCAW)*, April 4, **2022**. https://symposium.foragerone.com/rcaw2022/presentations/39111

18. Knowles CA*, **Pokhrel LR**. Food packaging decontamination with novel nano-antimicrobial. Poster. *ECU Research and Creative Achievement Week (RCAW)*, April 4, **2022**. https://symposium.foragerone.com/rcaw2022/presentations/38959

19. **Pokhrel LR,** Knowles CA*, Williams J*. Addressing global public health through innovation. **Seminar**. *ECU Department of Public Health*, February 24, **2022**.

20. **Pokhrel LR**. Nano-Metal Organic Framework for Mosquito Control. 45th Annual Meeting of the Mid Atlantic Mosquito Control Association (MAMCA), February 23rd, **2022**. Platform Presentation (Virtual).

21. Williams J*, **Pokhrel LR**. Toward mitigating nosocomial infections with surface functionalized nano-antibacterial agent. *AEHAP 2022 Student Research Competition (SRC)*, February 18, **2022** (First place winner).

22. Yusefi-Tanha E*, Fallah S, Rostamnejadi A, **Pokhrel LR**. Effect of nano zinc oxide and zinc chloride on essential nutrients, protein, oil and zinc content in soybean (*Glycine max* L.) seed. *1st International and 5th National Seed Science and Technology Conference of Iran*, February 9-10, 2022 (Conference Paper).

23. Suarez CA*, **Pokhrel LR**, Humphrey CP, O'Driscoll M, Lee J. Surface functionalized electrically conductive membranes for aqueous 1,4-Dioxane removal. Poster. *AEHS Foundation 37th Annual International Conference on Soils, Sediments, Water, and Energy*, October 18-21, **2021**.

24. White AV*, Wambui DW*, **Pokhrel LR**. Risk Assessment of Inhaled Diacetyl from Electronic Cigarette Use Among Teens and Adults. Poster. *ECU Research and Creative Achievement Week (RCAW)*, April 5-9, **2021**. https://youtu.be/CcnuXEXrFm0

25. Ubah CS*, **Pokhrel LR**. Nanobodies as potential antiviral agents against SARS-CoV-2/COVID-19. *ECU Research and Creative Achievement Week (RCAW)*, April 5-9, **2021**. https://youtu.be/I5-4UJfnnTU

26. Sabu S*, **Pokhrel LR**. Higher efficacy of nanoparticles when combined with common antibiotics against nosocomial infections. Poster. *ECU Research and Creative Achievement Week (RCAW),* April 5-9, **2021**. https://youtu.be/BeM75uWaDcM

27. Suarez CA*, **Pokhrel LR**, Humphrey CP, O'Driscoll M, Lee J. 1,4-Dioxane removal from drinking water using Nano-ECM. Poster. *ECU Research and Creative Achievement Week (RCAW),* April 5-9, **2021**. https://www.youtube.com/watch?v=cpUw1KMynAg

28. **Pokhrel LR**. Near-atomic size novel nanotechnology-based NoPest-Ag5 that effectively kills mosquitos is safer to honey bees, *Apis mellifera* L. ACS National Meeting Macromolecular Chemistry: The Second Century. *ACS Division of Agriculture and Food Chemistry*. Poster. April 21, **2021**.

29. **Pokhrel LR**, Jacobs ZL*, Dikin D. Bactericidal effects of near-atomic size amino-functionalized silver nanoparticles via cell wall damage and adherent fimbriae inhibition. ACS National Meeting Macromolecular Chemistry: The Second Century. *ACS Division of Medicinal Chemistry*. Poster. April 21, **2021**.

30. **Pokhrel LR**. Nanotechnology and Global Public Health. **Seminar**. *North Dakota State University*, Department of Civil and Environmental Engineering, April 19, **2021** (delivery via Zoom).

31. Morris CL*, **Pokhrel LR**, Williams A, Iverson I. Factors Influencing Indicator Bacteria Sampling Results in New Water Wells in North Carolina, USA. ACS National Meeting Macromolecular Chemistry: The Second Century. *ACS Current Status of Environmental Research on Water Contaminants.* Oral Presentation. April 5-16, **2021**. https://acs.digitellinc.com/acs/live/player/32402

32. Ubah CS*, **Pokhrel LR**. Nanobodies as potential antiviral agents against SARS-CoV-2/COVID-19. ACS National Meeting Macromolecular Chemistry: The Second Century. *ACS Division of Medicinal Chemistry*. Poster. April 21, **2021**.

33. Suarez CA*, **Pokhrel LR**, Humphrey CP, O'Driscoll M, Lee J. Nano-modified **e**lectrically conducting membranes (Nano-ECM) for 1,4-Dioxane removal from drinking water. ACS National Meeting Macromolecular Chemistry: The Second Century. *ACS Current Status of Environmental Research on Water Contaminants.* Poster. April 5-16, **2021**.

34. **Pokhrel LR**, Fallah S. NSF-E09-Arbuscular mycorrhizal fungus protects plant from nanophytotoxicity. *9th Nano Conference, Sustainable Nanotechnology Organization (SNO) and Nanotechnology, Occupational and Environmental Health (Nano-OEH),* November 12th, **2020**.

35. **Pokhrel LR.** Smart Rapid-Acting Antiviral Therapy (Smart-RAAT) against COVID-19. *ASTMH Pitch Competition*, October 23, **2020.** (Finalist; $1000)

36. Suarez CA*, **Pokhrel LR**, Burrows WB*. Nanotechnology-based Electrically Conductive Membrane (Nano-ECM) for Nitrate Removal from Drinking Water. *North Carolina Public health Association (NC PHA)*. Poster. October 7th, **2020**.

37. Suarez CA*, **Pokhrel LR**. Enhanced Nitrate Removal from Drinking Water Using Nanotechnology-enabled Electrically Conductive Membrane (Nano-ECM). *2020 National Environmental Health Association's Annual Education Conference, Student Research*

Competition. New York, NY. Platform Presentation. Submitted. Feb. 27th, **2020**. (**Cancelled** due to COVID-19)

38. Suarez CA*, **Pokhrel LR**, Burrows WB*. Nanotechnology-based Electrically Conductive Membrane (Nano-ECM) for Nitrate Removal from Drinking Water. *Natural Resources and Environmental Cluster*, East Carolina University. Poster. April 3rd, **2020**. (**Cancelled** due to COVID-19)

39. Suarez CA*, **Pokhrel LR**, Burrows WB*. Use of Silver Nanoparticle-based Electrically Conductive Membrane (Nano-ECM) for the Removal of Nitrate from Drinking Water. *2020 CHHE Research and Innovation Day Poster session*, University of North Carolina Wilmington, March 23rd, **2020**. (**Cancelled** due to COVID-19)

40. Suarez CA*, **Pokhrel LR**, Burrows WB*. Nanotechnology-based Electrically Conductive Membrane (Nano-ECM) for Nitrate Removal from Drinking Water. Innovation & Entrepreneurship @ RCAW-ECU. Poster. April 1st, **2020**.

41. **Pokhrel LR**. Nano-Metal Organic Framework for Mosquito Control. **45th Annual Meeting of the** Mid Atlantic Mosquito Control Association (MAMCA), Greenville, SC, February 20th, **2020**.

42. White AV*, **Pokhrel LR**. Silver Nano-pesticide for Mosquito-borne Arboviral Disease Control. North Carolina Mosquito Control and Vector Association (NCMVCA). Carolina Beach, NC, Oral presentation, December 10-12, **2019**.

43. White AV*****, **Pokhrel LR**. Functionalized Nanopesticide for Mosquito-borne Arboviral Disease Control. *Innovation & Entrepreneurship @ RCAW-ECU*. April 5th, **2019**. Poster. ***Innovation Award Winner.***

44. Dean RL*****, **Pokhrel LR**. Toward Next Generation PVC Pipe Material for Water Infrastructure. National Public Health Week. East Carolina Heart Institute. Poster, April 4th, **2019**.

45. Dean RL*****, **Pokhrel LR**. Toward Next Generation PVC Pipe Material for Water Infrastructure. *Innovation & Entrepreneurship @ RCAW-ECU*. April 5th, **2019**. Poster. ***Innovation Award Winner.***

46. **Pokhrel LR.** A Critical Appraisal of the Risks and Benefits of Iron and PVC Pipes in Drinking Water Systems. Invited Speaker at 47th Annual Meeting of the PVC Pipe in North America: Celebrating More Than Sixty Years of Success. San Diego, CA, March 11-13, **2019**.

47. **Pokhrel LR.** Nanotechnology-enabled agriculture and public health. Nanoscale Science and Engineering for Agriculture and Food Systems: Gordon Research Conference, South Hadley, MA, US, June 3-8, **2018**.

48. Ubah CS*, **Pokhrel LR**, Dikin D. Differential effects of monovalent cations and anions on key nanoparticle physico-chemical attributes. Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, Temple University, Philadelphia, PA, April 10, **2018**.

49. **Pokhrel LR**. Engineering hybrid nanosystem (HNS) as a novel sustainable tool for Zika vector *Aedes aegypti* control. 254th ACS National Meeting, Washington DC, Aug. 20-24, **2017 (Selected for Sci-Mix as Outstanding Poster)**.

50. Ubah CS*, **Pokhrel LR**, Dikin D. Evaluation of Particle Characteristics (Size, Size Distribution, Surface Charge) of a Nanoformulation using the Dynamic Light Scattering (DLS) System. Philadelphia Symposium on Cross Disciplinary Analytical Approaches, Temple University College of Engineering, June 10, **2017**.

51. Ubah CS*, **Pokhrel LR**, Dikin D. Evaluation of Particle Characteristics (Size, Size Distribution, Surface Charge) of a Nanoformulation using the Dynamic Light Scattering (DLS) System. Temple University CPH Research Day, April 21, **2017**.

52. **Pokhrel LR**, Dikin D. Developing ecofriendly–hybrid nanosystem (Eco–HNS) for controlling pandemic Zika vector *Aedes aegypti* L. Environmental Research in the Changing Climate, Temple University, Philadelphia, March 29, **2017**.

53. Jacobs ZL[#], **Pokhrel LR**. Low-cost Sustainable Nanotechnology-based Filter for Point-Of-Use Water Purification for Poor Economies. Temple University CPH Research Day, April 21, **2017.**

54. Rosen MB*, **Pokhrel LR**, Dubey B. Evaluation of Multiple Heavy Metals and Metalloids in Glass Beads Used in Retroreflective Road Markings. Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, University of the Sciences, Philadelphia, PA, March 27, **2017.**

55. Rosen MB*, **Pokhrel LR**, Dubey B. Evaluation of Multiple Heavy Metals and Metalloids in Glass Beads Used in Retroreflective Road Markings. ACS 252 National Meeting, Philadelphia, PA, August 21-25, **2016**.

56. Rosen MB*, **Pokhrel LR**, Dubey B. Assessing Risk of Multiple Heavy Metals and Metalloids in Glass Beads Used in Retroreflective Road Markings. CPH Research Day, Temple University, Philadelphia, April 20, **2016**.

57. Zika in the US: What Environmental Health and Pest Management Professionals Need to Know. EEK (Enhancing Environmental Health Knowledge) – Vectors and Public Health Pests Virtual Conference Sponsored by CDC's National Center for Environmental Health and National Environmental Health Association (NEHA). 9:00 AM, April 13, **2016**.

58. Joining Forces in the Fight against Zika: The NIH Response. Virtual Conference Sponsored by *ACS Infectious Diseases*. 11:00 AM, April 14, **2016**.

59. Jacobs ZL[#], **Pokhrel LR**. Low-cost Sustainable Nanotechnology-based Filter for Point-Of-Use Water Purification for Poor Economies. Temple Undergraduate Research Forum and Creative Works Symposium (TURF-CreWS), April 14, **2016.**

60. Jacobs ZL[#], **Pokhrel LR**. Low-cost Sustainable Nanotechnology-based Filter for Point-Of-Use Water Purification for Poor Economies. Philadelphia ACS Younger Chemists Committee (YCC) Poster Session, University of the Sciences, Philadelphia, PA, Feb 22, **2016**.

61. Jacobs ZL[#], **Pokhrel LR.** Towards low-cost sustainable nanotechnology-based filter for point-of-use water purification. Temple University CPH Research Day, April 28, **2015**. **(Dean's Undergraduate Research Award)**

62. **Pokhrel LR**, Dubey B. General linear model-predicted and observed toxicity of three organo-coated silver nanoparticles: Impacts of particle size, surface charge and dose.

Platform presentation at World Environmental & Water Resources Congress, Portland, OR, 1-6, June **2014**.

63. Andersen CP, Rygiewicz PT, Johnson MG, **Pokhrel LR**, Reichman J. Chemical Safety for Sustainability (CSS) Connectome Research Planning Meeting for EPA Chemical Safety for Sustainability Research program. Research Triangle Park, NC, May 5-6, **2014**.

64. Andersen CP, Rygiewicz PT, Johnson MG, Reichman J, Tumburu L, **Pokhrel LR**, Ho K, Burgess R, Parks A, Wang H, Li S. Ecotoxicology of selected nanomaterials in freshwater, marine, and terrestrial systems. *CSS 2014 Nanotechnology, Scientist-to-scientist Meeting*, Research Triangle Park, NC, February 24-25, **2014**.

65. Andersen CP, King G, Plocher M, Storm M, Rygiewicz PT, **Pokhrel LR**. Germination and early plant development of 10 plant species exposed to TiO_2 and CeO_2 nanoparticles. Poster presented at SETAC North America 34th Annual Meeting, Nashville, TN, 17-21 Nov **2013**.

66. **Pokhrel LR**, Silva TU, Dubey B. Modulation of silver nanoparticle toxicity by particle characteristics (size and charge) and suspension chemistry. *Elsevier Environmental Health 2013, Science and Policy to Protect Future Generations*, Boston, Massachusetts, USA, 3-6 March **2013**.

67. Dubey B, **Pokhrel LR**. Opportunities for nanoparticle research. Invited presentation at University Consortium for Field-Focused Groundwater Contamination Research Program, Annual Progress Meeting: The Arboretum, University of Guelph, ON, Canada, June 12-14, **2012**.

68. **Pokhrel LR**, Dubey B, Scheuerman PR. Developmental phytotoxicity of silver and zinc oxide nanoparticles to the crop plants. *NEHA Conference*, San Diego, CA, June 28-30, **2012**. (**NEHA/CDC/AEHAP Student Competition Research Award Winner**).

69. **Pokhrel LR**. How small is different: Nanomaterials in the environment. *East Tennessee State University, Department of Environmental Health, Seminar series*, October 30, **2012**.

70. **Pokhrel LR**, Scheuerman PR, Dubey B. Ecological risk assessment of zinc oxide nanoparticles. *Proceedings of the 2nd International Conference on Environmental Pollution and Remediation*, Montreal, Canada, August 28-30, **2012**.

71. **Pokhrel LR**, **Dubey B**. Metal mining industry: Global production statistics, potential environmental effects, mitigation techniques, and sustainability. *13th Intl Symposium on Environmental Issues and Waste Management in Energy and Mineral Production SWEMP 2012*, New Delhi, India, November 28-30, **2012**.

72. **Pokhrel LR**, Dubey B, Scheuerman PR. Potential developmental toxicity of silver and zinc oxide nanoparticles to the terrestrial plants. *28th Int'l Conference on Soil, Sediment, Water, and Energy*, Amherst, MA, October 15-18, **2012**.

73. **Pokhrel LR**, Scheuerman PR, Tolaymat TM, Dubey B. Potential impacts of metal nanoparticles on the growth and development of crop plants. *Appalachian Student Research Forum*, Johnson City, TN, April 5, **2012**.

74. **Pokhrel LR**, Dubey B. Silver and zinc oxide nanoparticles cause developmental anomalies in the terrestrial plants. *Tennessee Environmental Conference*, Kingsport, TN, March 13-14, **2012**.

75. **Pokhrel LR**, Dubey B, Singhal N. Assessing the environmental risks from road marking glass beads. *Tennessee Environmental Conference*, Kingsport, TN, March 13-14, **2012**.
76. **Pokhrel LR**, Silva T, El Badawy AM, Tolaymat TM, Dubey B. Evaluation of aquatic toxicity of nanoscale silver, zinc oxide, titanium dioxide and cadmium selenide quantum dots, and their ionic particulates to the MetPLATE™ bioassay. *27th Int'l Conference on Soil, Sediment, Water, and Energy*, Amherst, MA, October 17-20, **2011** (**Adventus Americas Best Platform Presentation Award Winner**).
77. **Pokhrel LR**, Silva TU, El Badawy AM, Tolaymat TM, Dubey B. Evaluation of aquatic toxicity of nanoscale silver, zinc oxide, titanium dioxide and cadmium selenide quantum dots, and their ionic particulates to the MetPLATE™ bioassay. *Gordon Research Conference*, New Hampshire, NH, May 29-June 3, **2011**.
78. **Pokhrel LR**, Silva TU, El Badawy AM, Tolaymat TM, Dubey B. Evaluation of aquatic toxicity of nanoscale silver, zinc oxide, titanium dioxide and cadmium selenide quantum dots, and their ionic particulates to the MetPLATE™ bioassay. *Appalachian Student Research Forum*, Johnson City, TN, March 24, **2011**.
79. **Pokhrel LR**, Dubey B. Nanoecotoxicity and human health: Where do we stand? *Appalachian Student Research Forum*, Johnson City, TN, March 24, **2011**.
80. **Pokhrel LR**, Dubey B. Nanoecotoxicity and human health: Where do we stand? *Tennessee Environmental Conference*, Kingsport, TN, March 15-16, **2011**.
81. **Pokhrel LR**, Dubey B. Investigation of the environmental fate, transport, and transformation of silver nanoparticles in the waste disposal systems. *Appalachian Student Research Forum*, Johnson City, TN, April 8, **2010**.
82. **Pokhrel LR**, Karsai I. Mapping the dorsal skin pattern of spotted salamanders, *Ambystoma maculatum*. *Appalachian Student Research Forum*, Johnson City, TN, April 2-3, **2008** (**First Place Award Winner**).

Electronic Publications: Total 5

1. **Pokhrel LR**, Humphrey C. ECU Hurricane Florence Recovery: Drinking Water and Septic Systems. Oct. 2018.
   Available at: https://florencerecovery.ecu.edu/environmentalresources/waterandseptic/
2. **Pokhrel LR**, Hill W. ECU Hurricane Florence Recovery: Hygiene and Sanitation. Oct. 2018.
   Available at: https://florencerecovery.ecu.edu/environmentalresources/hygiene/
3. **Pokhrel LR**, Kelley T. ECU Hurricane Florence Recovery: Solid Waste. Oct. 2018.
   Available at: https://florencerecovery.ecu.edu/environmentalresources/solidwaste/
4. **Pokhrel LR**. Op-Ed: After the hurricanes, a big public health threat in a tiny insect.
   Available at: https://cph.temple.edu/news/op-ed-after-hurricanes-big-public-health-threat-tiny-insect
5. **Pokhrel LR**, Weir MH, Watanabe T. Water contamination and public health impacts post-earthquake. July 1, 2015.

Available at: https://cph.temple.edu/chpsw-socialbehavioral-publichealth-research/news/opinion-water-contamination-and-public-health

FUNDING SUPPORT

Submitted Projects: (Total 1)

1) **Project Title, "Proof-Of-Concept In Vitro Study of Novel miRAg-5 as a Treatment Against Respiratory Syncytial Virus (RSV) Infections"**
Role: **PI**
Sponsor: REDE SPARC Program
Total Amount: $10000
Submitted: 4/02/2023
Project Period: 05/08/23 - 04/30/24

Ongoing Funding Support: (Total 5)

1) **Project Title, "Novel NoPest-Ag5 for Global Honeybee Protection from Varroa Mite (*Varroa destructor*) Infestations"**
Role: **PI**
Sponsor: NC Biotechnology Center (Flash Grant)
Total Amount: $27,500
Submitted: 12/06/2022
Project Period: 06/01/23 - 05/31/24

2) **Project Title, "Testing Honey Bee-Safe Pesticide, NoPest-Ag5, for Varroa Mite Control"**
Role: **Faculty Mentor/PI**
Sponsor: NC GlaxoSmithKline Foundation STEMM Research Summer Immersion Program
Submitted: 12/15/2022
Total Amount: $20,000
Project Period: 06/01/23 - 08/10/23

3) **Project Title, "Novel miRAg-5 Therapeutic Against Respiratory Virus (RSV) Infections"**
Role: **PI**
Sponsor: NSF funded Innovation-CORPS@ECU
Total Amount: $5,000
Project Period: 05/01/23 - 04/30/24

4) **Project Title, "Novel NoPest-Ag5 for Household Pest Control"**
Role: **PI**
Sponsor: NSF funded Innovation-CORPS@ECU
Total Amount: $5,000
Submitted: 03/25/2022
Project Period: 08/01/22 - 07/31/23

5) **Project Title, "NC Bioneer: NoPest-Ag5"**
Role: **PI**
Sponsor: NC Bioneer Venture Challenge
Total Amount: $10,000
Submitted: 02/25/2021
Project Period: 06/01/22 - 05/31/24

Completed Support

6) **Project Title, "Safety Assessment of a Novel NoPest-Ag5 Used for Mosquito Control"**
Role: **PI**
Sponsor: North Carolina Biotechnology Center (NCBC) Translational Research Grant
Total Amount: $109,772
Submitted: 02/25/2020
Project Period: 08/15/20 - 11/14/22
Effort: 19%

8) **Project Title, "Smart Nano-enabled Combination Antiviral as a Breakthrough Therapy (SNAT) against SARS-CoV-2/COVID-19"**
Role: **PI** (Co-PIs: Akula, Wardle)
Sponsor: North Carolina Biotechnology Center (NCBC) Flash Grant Cycle 1
Total Amount: $20,000
Submitted: 08/12/20
Project Period: 12/01/20 - 02/14/23

7) **Project Title, "To Develop Novel Nanotechnology-based Functional Products and Understand Their Potential Environmental Health and Safety (EHS)"**
Role: **PI**
Sponsor: ECU Start-up Grant
Total Amount: $189,850
Project Period: 11/01/18 - 06/30/22

9) **Project Title, "Risk and Life Cycle Assessment of Engineered Nanoparticles in the Environment"**
Role: **Co-PI** (International Instructor)
Sponsor: Ministry of Human Resource Development (MHRD) Scheme on Global Initiative on Academic Network (GIAN), Government of India
Total Amount: $2,500
Project Period: 03/14/22 - 03/18/22

10) **Project Title, "Smart Nano-enabled Combination Antiviral as a Breakthrough Therapy (SNAT) against SARS-CoV-2/COVID-19"**
Role: **PI**
Sponsor: NSF funded Innovation-CORPS@ECU
Total Amount: $3,000
Project Period: 09/01/20 - 06/30/21

11) **Project Title, "Development and performance evaluation of the next generation nano-filters for 1,4-Dioxane removal from water and comparisons with naturally available renewable filter matrices (*Luffa* and woodchips)"**
Role: **PI**
Sponsor: ECU Natural Resources and Environment Research Cluster
Total Amount: $14,000
Project Period: 12/01/18 - 06/30/21

12) **Project Title, "Nex-CaFi: Developing Next Generation Cartridge/Filter (CaFi) for Mitigating Pesticide Exposures in Farms"**
Role: **Co-PI** (PI: Sousan)
Sponsor: NSF funded Innovation-CORPS@ECU
Total Amount: $3,000
Project Period: 12/01/18 - 05/30/19

13) **Project Title, "Environmental Nanotoxicology and Risk Assessment"**
Role: **PI**
Sponsor: Temple University
Total Amount: $30,000
Project Period: 09/2014 - 08/2018

14) **Project Title, "Toxicological Effects of Engineered Nanomaterials in Terrestrial Systems"**
Role: **Co-PI** (PI: Andersen)
Sponsor: USEPA/National Academies of Sciences
Total Amount: $60,000
Project Period: 05/2013 - 05/2014

15) **Project Title, "Evaluation of Colloidal Stability and Ecotoxicity of Metal-based Nanoparticles in the Aquatic and Terrestrial Systems."**
Role: **Co-PI** (PI: Dubey)
Sponsor: East Tenn. State University
Total Amount: $50,000
Project Period: 09/2009 – 05/2013

16) **Project Title, "Mapping the Skin Pigmentation Patterns in Salamanders"**
Role: **Co-PI (**PI: Karsai)
Sponsor: East Tenn. State University
Total Amount: $500
Project Period: 2007 – 2009

Not Funded Projects

1) **Project Title, "Testing Efficacy of Novel Honey Bee-Safe Pesticide, NoPest-Ag5, for Varroa Mite Control"**
Role: **PI**
Sponsor: North American Pollinator Protection Campaign (NAPPC)
Total Amount: $10000
Submitted: 1/20/2023

Project Period: 04/01/23 - 03/31/24

2) **Project Title (tentative), "Probing Mechanisms Underlying Novel SNAT Interactions with the S2 Domain of SARS-CoV-2 Encoded S Protein"**
Role: **Co-PI** (PI: Akula)
Sponsor: NIAID R21
Total Amount: $412,828
Submitted: 06/15/2022
Project Period: 01/01/2023 – 12/30/2024
Effort: 11%

3) **Project Title, "Role for miR-150-5p and miR-29a-3p as Prognostic Biomarkers of COVID-19"**
Role: **Co-PI** (Co-PIs: Akula (lead), Cook, Fallon)
Sponsor: NIH R21
Total Amount: $415,250
Submitted: 02/16/2021
Project Period: 09/01/21 - 08/31/23
Effort: 10% year-1, 5% year-2

4) **Project Title, "Environmental Education on Hurricane Preparedness and Response for Community Stakeholders in Eastern North Carolina"**
Role: **Co-PI** (Co-PI: Balanay)
Sponsor: USEPA Environmental Education Grant
Total Amount: $137,252
Submitted: 1/06/2020
Project Period: 08/01/20 -07/31/22

5) **Project Title, "Assessing Removal of Emerging Contaminant 1,4-Dioxane from the Surface Water Using NanoComposite Electrically Conductive Membranes (Nano-ECM)"**
Role: **PI** (Co-I: Humphrey)
Sponsor: Center for Human Health and Environment (CHHE-NCSU)
Project Period: 1 yr.
Submitted: 09/27/19

6) **Project Title, "Native Chloroplasts-based Nano Discs (NCND) for Mosquito Control Applications"**
Role: **PI** (Co-I: White)
Sponsor: American Mosquito Control Association (AMCA)
Project Period: 1 yr.
Total Amount: $49,931
Project Period: 1 yr.
Submitted: 9/20/19

7) **Project Title, "Native Chloroplasts-based SMALPPs Nanodisks for Mosquito Control Applications"**
Role: **PI** (Co-Is: Richards, Zhang, Gowdy)
Sponsor: NIH-R21
Total Amount: $402,838.50

Project Period: 2 yrs.
Submitted: 02/15/19

8) **Project Title, "Sustainable Nano-Pyrethroid for Zika Control"**
Role: **PI** (Co-I: Richards)
Sponsor: US EPA P3 Program – Phase I
Submitted: 12/06/18
Project Period: 1 yr

9) **Project Title, "Nanotechnology-Enabled Light-weight Respirator Cartridge with Extended Service Life and Indicator."**
Role: **Co-PI** (PI: Sousan)
Sponsor: North Carolina Biotechnology Center (Flash Grant)
Total Amount: $20,000
Project Period: 1 yr
Submitted: 01/16/19

10) **Project Title, "Nano-functionalized Electrically Conducting Membranes (ECMs) for 1,4-Dioxane Removal from Drinking Water"**
Role: **PI**
Sponsor: The Ralph E. Powe Junior Faculty Enhancement Awards (ORAU)
Total cost: $10,000
Submitted: 01/02/19 (Internal deadline)

11) **Pre-proposal Title, "NPcide: Nano-Pesticide as a Revolutionary Tool for Mosquito-borne Arboviral Disease control"**
Role: **PI**
Sponsor: US Army Deployed War-Fighter Protection (DoD)
Total budget: $900,000
Submitted: 11/30/2018

12) **Project Title, "Next Generation Hydroponics and Alternative Water Sources for Urban and Peri-Urban Agriculture"**
Role: **Co-PI** (PI: Bezbaruah)
Total budget: $5.2 M total cost (Temple portion $945k)
Sponsor: USDA/NIFA
Submitted: Aug. 2017

13) **Project Title, "Elucidating Bio-Physical Mechanisms and Factors Influencing Nanomaterial Transport, Transformation and Toxicity (ENM-3T) in Human Cell Systems"**
Role: **PI**
Total budget: $390,000
Sponsor: NIH R21
Submitted: Feb. 2017

14) **Project Title, "Elucidating Nanomaterial-Chromium(VI) Interactions in Soil to Assess Crop Heath and Food Safety"**
Role: **PI**
Total budget: $500k

Sponsor: USDA/NIFA
Submitted: Jul. 2016

15) **Project Title, "Developing Low Footprint–Hybrid NanoSystem (LF–HNS) for Effective Control of Pandemic Zika Vector *Aedes aegypti* L."**
Role: **PI**
Total budget: $500-700k
Sponsor: USAID Grand Challenge
Submitted: May 2016

16) **Project Title, "Characterizing Nanostructured Material-Coupled Chromium(VI) Transfer, Fate and Toxicity in Soil-Grown Crop Plant"**
Role: **PI**
Total budget: $495,390
Sponsor: NSF
Submitted: Oct. 2015

17) **Project Title, "Elucidating Rhizospheric Interactions, Biouptake, Transformation and Toxicity of Varying Sizes and Ligand-Modified Nanoparticles In Leafy Greens"**
Role: **PI**
Total budget: $499,686
Sponsor: USDA/NIFA
Submitted: May 2015

18) **Project Title, "Modeling Health Risks from Roof Harvested Rainwater for Urban Agriculture: Decision Support Tools and Alternative Treatment Selection Support"**
Role: **Co-PI** (PI: Weir)
Total budget: $500,000
Sponsor: USDA/NIFA
Submitted: June 2015

CONSULTING ACTIVITIES

2017- 2020. Served as **Expert Consultant** for **Axler Goldich LLC**, Philadelphia, PA, on the class action lawsuit filed to *The United States District Court for the Eastern District of Pennsylvania* on the case that involved Jenny Chen and Brian Jordan (Plaintiffs) and AMTRACK and RWC INC (Defendants) in which the defendants sprayed the herbicide AquaNeat (glyphosate, active ingredient) illegally along certain of Defendant Amtrak's rail lines in Philadelphia County and I performed the chemical risk assessment of the herbicide(s) to determine the herbicide drift distance, concentrations in the soil and vegetations, and human health effects in residents consuming those vegetables.

TEACHING ASSIGNMENTS (2018-2022)

Term	Course	Course Title	Credit Hours	Enroll-ment
Spring 2019	EHST 2110-003	Intro to Environmental Health Science	3	57
Spring 2019	EHST 5010-600	Principles of Toxicology	3	15

Spring 2019	EHST 5011-600	Principles of Toxicology Lab	1	15
Spring 2019	MPH 6991-012	MPH Professional Paper 1	2	1
Summer 2019	EHST 6210-600	Topics in Environ Health and Safety	1	1
Summer 2019	MPH 6010-601	Fundamentals of Environ Health	3	13
Fall 2019	EHST 2110-004	Intro to Environmental Health Science	3	50
Fall 2019	EHST 6210-604	Topics in Environ Health and Safety	1	4
Fall 2019	EHST 6220-603	Topics in Environ Health and Safety	2	1
Fall 2019	MPH 6992-610	MPH Professional Paper	1	1
Fall 2019	PUBH 7930-001	Enviro & Occup Exposure Assessment	3	1
Fall 2019	PUBH 7930-601	Enviro & Occup Exposure Assessment	3	5
Spring 2020	EHST 5010-001	Principles of Toxicology	3	13
Spring 2020	EHST 5011-001	Principles of Toxicology Lab	1	13
Spring 2020	EHST 5010-600	Principles of Toxicology	3	1
Spring 2020	EHST 5011-600	Principles of Toxicology Lab	1	1
Spring 2020	EHST 6210-605	Topics in Enviro Health and Safety	2	3
Spring 2020	EHST 6220-602	Topics in Enviro Health and Safety	1	1
Spring 2020	EHST 6990-602	Directed Graduate Research Project (MSEH Professional Paper)	3	1
Spring 2020	MPH 6991-610	MPH Professional Paper 1	2	1
Summer 2020	EHST 6210-600	Topics in Environ Health and Safety	1	3
Fall 2020	PUBH 7930-601	Enviro & Occup Exposure Assessment	3	7
Fall 2020	MPH 6992-610	MPH Professional Paper	1	1
Fall 2020	EHST 6990-602	Directed Graduate Research Project (MSEH Professional Paper)	3	3
Fall 2020	EHST 6220-602	Topics in Environ Health and Safety	2	1
Fall 2020	EHST 6210-603	Topics in Environ Health and Safety	1	1
Fall 2020	EHST 2110--004	Intro to Environmental Health Science	3	47

Spring 2021	EHST 5010-600	Principles of Toxicology	3	17
Spring 2021	EHST 5011-600	Principles of Toxicology Lab	1	17
Spring 2021	EHST 7000-001	MSEH Thesis	3	1
Spring 2021	EHST 6210-604	Topics in Environmental Health and Safety	1	1
Fall 2021	PUBH 7930-601	Enviro & Occup Exposure Assessment	3	8
Fall 2021	PUBH 7930-001	Enviro & Occup Exposure Assessment	3	1
Fall 2021	MPH 6991-609	MPH Professional Paper 1	2	1
Fall 2021	EHST 6220-001	Topics in Environ Health and Safety	2	1
Spring 2022	EHST 7000-003	MSEH Thesis	3	1
Spring 2022	EHST 6230-603	Topics in Environmental Health and Safety	3	1
Spring 2022	MPH 6991-610	MPH Professional Paper 1	2	1
Summer 2022	PUBH 9000-603C	Dissertation Research	12	2
Summer 2022	PUBH 8684-603C	Field Practicum	5	1
Summer 2022	MPH 6992-607C	MPH Professional Paper 2	1	1
Fall 2022	MPH 6010-601	Fundamentals of Environmental Health	3	14
Fall 2022	PUBH 7930-601	Environ & Occup Exposure Assessment	3	2
Fall 2022	MPH 6991-607	MPH Professional Paper I	2	1
Fall 2022	PUBH 8684-001	Field Practicum	5	1
Fall 2022	PUBH 9000-001	Dissertation Research	12	1
Fall 2022	PUBH 9000-603	Dissertation Research	12	2
Spring 2023	PUBH 9000-606	Dissertation Research	12	2
Spring 2023	PUBH 9000-001	Dissertation Research	12	1
Spring 2023	MPH 6992	MPH Professional Paper 2	1	1

Other Teaching Activities (not listed above or on Faculty 180)

Term	Course	Course Title (Remarks)	Credit Hours	Enroll-ment

Spring 2019	EHST 5010-600	Principles of Toxicology *(Originally planned for face-to-face delivery, but I was given a week time after Christmas break to move this course online due to the lack of classroom. So, within a week I developed online modules for DE delivery.)*	3	15
Spring 2019	EHST 5011-600	Principles of Toxicology Lab *(Originally planned for face-to-face delivery, but I was given a week time after Christmas break to move this course online due to the lack of classroom. So, within a week I developed all online modules for DE delivery.)*	1	15
Spring 2019	MPH 6992-011	MPH Professional Paper *(served as content advisor)*	1	1
Spring 2019	EHST 3502	Problems in Environmental Health *(Co-taught with Dr. Stephanie Richards; Primary Instructor Dr. Richards)*	2	2
Spring 2020	PUBH 8125	Environ and Occup Epidemiology *(Guest lectured on the topic "Toxicology of Formaldehyde". Primary Instructor Dr. Kearney)*	3	7
Spring 2020	PUBH 8110	Emerging Issues in Environ and Occup Health *(Guest lectured on the topic "Nanotechnology and Public Health". Primary Instructor Dr. Kearney)*	3	7
Fall 2019/ Fall 2020	PUBH 7930-601 PUBH 7930-001	Enviro & Occup Exposure Assessment *(Created this new DrPH EOH course and taught face-to-face during Fall 2019, and moved to DE format since Fall 2020)*	3	1+5=6
Fall 2020	EHST 3500	Independent Study *(Understanding toxicity of nanomaterials in the environment)*	1	1

Student Advised/ Mentored

DrPH Students

At ECU (2018-Present)

1. Ashlee Davis (East Carolina University; DrPH Dissertation Advisor, Environmental and Occupational Health, **Fall 2021-Present**): *Understanding Risk of Electronic Cigarettes*

2. Elizabeth Abioro (East Carolina University; DrPH Dissertation Advisor, Environmental and Occupational Health, **Spring 2022-Present**): *Understanding Lead Risk in a Sample of Homes in Pitt County, NC*
3. Chukwudi S. Ubah (East Carolina University; DrPH Dissertation Advisor, Environmental and Occupational Health, **Fall 2020-Present**): *Nano-antimicrobial agents against Nosocomial Infections*
4. Jan Jaminal (East Carolina University; DrPH Academic Advisor, Environmental and Occupational Health, **Spring 2022-Present**)
5. Emily Potter (East Carolina University; DrPH Academic Co-Advisor, Environmental and Occupational Health, **Spring 2020-Present**)
6. Lentz Dorcely (East Carolina University; DrPH Academic Advisor, Environmental and Occupational Health, **Spring 2020-Present**)
7. Avian White (East Carolina University; Environmental and Occupational Health, **Fall 2019-Spring 2021**): *Risk Assessment of Inhaled Diacetyl from Electronic Cigarette Use among Teens and Adults*
8. David Wambui (East Carolina University; Environmental and Occupational Health, **Fall 2020-Present**): *Risk Assessment of Heavy Metals in Electronic Cigarette Use among Teens and Adults* (currently working on second publication)
9. Marjan Nekokhoo (Shahrekord University; PhD Dissertation Committee Member, Agronomy, **Spring 2020-Present**): *Understanding Phytotoxicity of Metal and Oxide Nanomaterials in Medicinal Plants*
10. Elham Yusefi Tanha (Shahrekord University; PhD Dissertation Committee Member, Agronomy, **Spring 2018-Spring 2022**): *Understanding Phytotoxicity of Metal and Oxide Nanomaterials*
11. Avian White (East Carolina University; DrPH Dissertation Advisor, Environmental and Occupational Health, **Fall 2018-Spring 2019**): *Surface Modified Nanomaterials for Mosquito Control*
12. Joseph Kusi (East Tennessee State University; PhD Dissertation Committee Member, Environmental Health, **Fall 2016- Spring 2020**): *Ecological Toxicity of Silver Based Nanoparticles*

MPH Students

At ECU (2018-Present)

1. Caroline Knowles (East Carolina University; MPH Supervisor/Advisor, Public Health, **Fall 2021-Present**): *Addressing Foodborne Illnesses through Food Packaging Decontamination using Novel Antimicrobial*
2. Summer Warner (East Carolina University; MPH Supervisor, Public Health, **Fall 2022**): *Protecting honey bees from varroa mites using NoPet-Ag5*

3. Stephiya Sabu (East Carolina University; MPH Supervisor/Advisor, Public Health, **Fall 2020-Summer 2022**): *Understanding Synergistic Effects of Silver Nanoparticles and Antibiotics against Hospital Acquired Infections*
4. Derrick Almond (East Carolina University; MPH Supervisor, Public Health, **Fall 2020**): *Understanding the Stability and Toxicity of Silver Nanoparticles*
5. Elijah Brooks (East Carolina University; MPH Supervisor/Advisor, Public Health, **Spring 2020-Fall 2020**): *Combined Effects of Silver Nanoparticles and Antibiotics against Antibiotic Resistance Bacteria*
6. Makenzie Staples (East Carolina University; MPH Supervisor, Epidemiology, **Summer 2019**): *Surface Functionalized Silver Nanoparticles for Mosquito Control*
7. Rebecca Dean (East Carolina University; MPH Supervisor/Advisor, Public Health, **Fall 2018-Spring 2019**): *Developing Nano-modified Next-Generation PVC Pipes for Safe Drinking Water*
8. William Burrows (East Carolina University; MPH Supervisor/Advisor, Public Health, **Spring 2019-Fall 2019**): *Removal of Nitrates from Drinking Water using Electrically Conducting Membranes*

MSEH Students

At ECU (2018-Present)

1. Jordan Williams (East Carolina University; MSEH Supervisor/Advisor, Environmental Health, **Fall 2020-Summer 2022**): *Surface Modified Nanomaterials as Antimicrobial Agents against Nosocomial Infections*
2. Samantha Curtis (East Carolina University; MSEH Committee Member, Environmental Health, **Fall 2022-Present**): *Assessing Noise Risk Among Attendees and Employees at National Hockey Games*
3. Jobert Exsatel (East Carolina University; MSEH Committee Member, Environmental Health, **Fall 2021-Present**): *Assessing Heat Stress Risk*
4. Corey Morris (East Carolina University; MSEH Advisor, Environmental Health, **Fall 2019-Fall 2021**): *Bacterial Sampling Outcomes in Private Drinking Wells in North Carolina*
5. Collins Suarez (East Carolina University; MSEH Thesis Advisor, Environmental Health, **Fall 2019-Summer 2021**): *Electrically Conducting Membranes for 1,4-Dioxane Removal from Drinking Water*
6. Randolph Leon (East Carolina University; MSEH Advisor, Environmental Health, **Fall 2019-Spring 2020**): *Understanding Water Infrastructures and Risks at US Army Installations*
7. Samantha Pepper Haskett (East Carolina University; MSEH Advisor, Environmental Health, **Spring 2020- Fall 2020**): *Understanding Antibiotic Resistance In Bacterial and Human Health Implications*

8. Seneca Toms (East Carolina University; MSEH Advisor, Environmental Health, **Fall 2019- Fall 2020**): *Understanding Legionella in Drinking Water*
9. Jordan Mazzara (East Carolina University; MSEH Supervisor, Environmental Health, **Fall 2019**): *Surface Functionalized Silver Nanoparticles for Mosquito Control*

MS Students

At ECU (2022-Present)

1. Anais Bauer (East Carolina University; MS Microbiology and Immunology Thesis Committee Member, **Fall 2022-Present**): *Understanding SNAT effects in SARS-CoV-2-infected hamster lungs*
2. Shannon Donnelly (East Carolina University; MS Student; I-Corps Project Supervisor, **Spring 2022**): *NoPest-Ag5 for Roach Control*

Prior to ECU (2013-2018)

Graduate Students (MPH + PhD)

1. Narges Ghasemi Siani (Shahrekord University; PhD Dissertation Committee Member, Agronomy, **Jan. 2016-Jan. 2017**): *Understanding Phytotoxicity of Metal and Oxide Nanomaterials*
2. Chukwudi S. Ubah (Temple University; Mentor, MPH in Environmental Health, **Spring 2017-Spring 2018**): *Understanding Environmental Chemistry of Nanomaterials*
3. Divya Singh (IIT New Delhi; PhD Dissertation External Reviewer, Nanotoxicology, **June 2016-Sept. 2016**): *Understanding Environmental Chemistry and Toxicity of Nanomaterials*
4. Kisha Grady (Temple University; MPH Advisor, Environmental Health, **Spring 2018-Summer 2018**): *Risk Assessment of Waste Anesthesia Isoflurane in Hospital and Veterinary Settings*
5. Anubhav Jain (Temple University; MPH Supervisor, Epidemiology, **Fall 2017-Summer 2018**): *Understanding Nanotoxicity*
6. Shane McLaughlin (Temple University; MPH Supervisor, Environmental Health, **Spring 2018**): *Understanding Nanotoxicity*
7. Katherine Johnston (Temple University; MPH Supervisor, Social and Behavioral Science, **Spring 2018**): Impacts of Hydraulic Fracking on Human Health and the Environment
8. Michael Rosen (Temple University; MPH Advisor, Environmental Health, **Spring 2016-Spring 2017**): *Risk Assessment of Heavy Metals in Retroreflective Glass Beads Used in Road Markings*
9. Caitlyn Bacon (Temple University; MPH Supervisor, Social and Behavioral Science, **Spring 2017-Summer 2017**): *Nanotechnology-enabled agriculture is the future?*
10. Liliana Barbour (Temple University; MPH Supervisor, Social and Behavioral Science, **Spring 2017-Summer 2017**): *Nanotechnology-enabled agriculture is the future?*

Chair, Thesis/ ProPaper/ Dissertation

1. Brenda Sharpe (**DrPH** EOH, **Spring 2023-Present**)
2. Chukwudi S. Ubah (**DrPH** EOH, **Fall 2020-Present**)
3. Ashlee Davis (**DrPH** EOH, **Fall 2021-Present**)
4. Elizabeth Abioro (**DrPH** EOH, **Spring 2022-Present**)
5. Avian White (**DrPH** EOH, **Fall 2018-Spring 2019**)
6. Caroline Knowles (**MPH** Epidemiology, **Fall 2021-Present**)
7. Stephiya Sabu (**MPH** Epidemiology, **Fall 2020-Summer 2022**)
8. Jordan Williams (**MSEH**, **Fall 2020-Summer 2022**)
9. Collins Suarez (**MSEH**, **Fall 2019-Summer 2021**)
10. Elijah Brooks (**MPH** Health Behavior, **Spring 2020-Fall 2020**)
11. Randolph Leon (**MSEH**, **Fall 2019-Spring 2020**)
12. Corey Morris (**MSEH**, **Fall 2019-Fall 2020**)
13. Samantha Pepper Haskett (**MSEH**, **Spring 2020- Fall 2020**)
14. Seneca Toms (**MSEH**, **Fall 2019- Fall 2020**)
15. William B. Burrows (**MPH** Epidemiology, **Spring 2019-Fall 2019**)

Member, Thesis/ Dissertation Committee

1. Anais Bauer (East Carolina University; **MS Thesis Committee Member**, Microbiology and Immunology, **Fall 2022-Present**)
2. Fatemeh Heidarian (Shahrekord University; **PhD Dissertation Committee Member**, Agronomy, **Fall 2021-Present**)
3. Marjan Nekoukhou (Shahrekord University; **PhD Dissertation Committee Member**, Agronomy, **Spring 2020-Present**)
4. Elham Yusefi Tanha (Shahrekord University; **PhD Dissertation Committee Member**, Agronomy, **Spring 2018-Spring 2022**)
5. Joseph Kusi (East Tennessee State University; **PhD Dissertation Committee Member,** Environmental Health, **Fall 2016-Spring 2020**)
6. Narges Ghasemi Siani (Shahrekord University; **PhD Dissertation Committee Member**, Agronomy, J**an. 2016-Jan. 2017**)

Undergraduate Students Advised: (2014 - Present)

1. Selena Garcia (North Carolina Central University; GSK Summer Intern Mentor, **Summer 2023**)
2. Heidi Jensen (Chowan University; GSK Summer Intern Mentor, **Summer 2023**)
3. Nia Brooker (East Carolina University; BSPH Supervisor, **Fall 2020**)
4. Marquis Peart (East Carolina University; BSPH Supervisor, **Fall 2020**)
5. Shannon Mayne (East Carolina University; BSPH Supervisor, **Summer 2019**)

6. Ali Razai (East Carolina University; BSPH Supervisor, **Spring 2019**)
7. Brilyn Parker (East Carolina University; BSPH Supervisor, **Spring 2019**)
8. Leeanna Roemelen (East Carolina University; BSPH Supervisor, **Spring 2019**)
9. Christopher Cassella (Temple University; BS in Neuroscience, **Summer 2018**)
10. Faith Befano (Temple University; BS in Nursing, **Spring 2018**)
11. Jonathan Koehler (Temple University; Major: Public Health, **Fall 2016-Fall 2017**)
12. Zachary L. Jacobs (Temple University; Major: Public Health, **Honors Thesis**, **Spring 2015-Spring 2017**)
13. Asha Zarr (Temple University; Major: Public Health, **Fall 2014-Fall 2016**)
14. Nicholas Ettore (Temple University; Major: Public Health, **Summer 2015-Spring 2016**)
15. Antonio M. Malloy (Temple University; Major: Public Health, **Fall 2015**)
16. Byron E. Posh (Temple University; Major: Geology, **Fall 2015**)
17. Daniel Masunungure (Temple University; Major: Biology, **Spring 2015**)
18. Hisieni M. Sacasa (Temple University; Major: Public Health, **Spring - Summer 2015**)
19. Nilam J. Patel (Temple University; Major: Public Health, Fall 2014 - Spring 2015)
20. Maureen McCauley (Temple University; Major: Public Health, **Honors Thesis**, **Fall 2014**)

K-12 Students Advised (2018-2019)

1. Jacob Potter (11th Grade, Greene Central High School, Snow Hill, NC; **Fall, 2019**)
2. Siddhartha, Kuval, Shikar, Akash and Devan* (5th Grader, Texas School; **Spring 2018**)

US Environmental Protection Agency-GRO Interns Mentored (2013)

1. James Gaynor (University of Portland, Portland, OR; USEPA GRO Intern, **Summer 2013**)
2. Michael Enright (Ripon College, Ripon, WI; USEPA GRO Intern, **Summer 2013**)

SERVICE ACTIVITIES (Fall 2018 - Present)

University

1. Faculty Mentor, NC GlaxoSmithKline Foundation STEMM Undergraduate Research Summer Immersion Program, Summer 2023
2. Judge, Research and Creative Activity Week (RCAW), Graduate and Postdoctoral Posters, 2019 - Present
3. Member, ECU Libraries Committee, 2020-2022
4. Faculty at Large Rep., ECU Safety and Security Committee (formerly, Environmental Safety Committee), 2020-2023
5. Affiliate Member, Natural Resources and Environment (NRE) Research Cluster, 2018-Present

Department/ College/ School

1. Program Director, PHFP Certificate Graduate Program, Fall 2021 – Present
2. Chair, PHFP Certificate Admission Committee, Fall 2021 – Present
3. Co-chair, DrPH EOH Steering Committee, Spring 2022 – Fall 2022
4. Member, MPH Admission Committee, Fall 2021 – Present
5. Member, MPH Curriculum Committee, Fall 2021 – Present
6. Member, DrPH EOH Curriculum Committee, Sept. 2018 – Present
7. Member, DrPH EOH Admission Committee, Sept. 2018 – Present
8. Member, DrPH Comprehensive Exam (PUBH 7930 Environmental and Occupational Exposure Assessment), Spring 2020 – Present
9. Member, MSEH Comprehensive Exam (EHST 5010 Toxicology), Sept. 2018 – Spring 2022
10. Member, MSEH Admission Committee, Dept. of Health Education and Promotion, Sept. 2018 – May 2021
11. Member, HEP Diversity Committee, 2020 – 2021
12. Participated in HEP Advancement Council Meeting, January 31st, 2021
13. Member, School of Rural Public Health (SRPH) Research Committee, Nov. 2018 – Dec. 2020
14. Member, SRPH Code Committee, HEP Environmental Health Program, Jan. 2019 – Dec. 2020

National

1. Council Member (Elected), National Environmental Health Council, Science and Protection Accreditation Council (EHAC), 2021 – 2024
   - -EHAC Bylaws and Policy Committee
   - -EHAC Graduate Policy Committee
   - -EHAC Undergraduate Requirements Revision Committee
2. Review Panel Member (Invited) for Graduate Women in Science (GWIS) National Fellowship Program (www.gwis.org), April 2020 – Present
3. Review Panel Member (Invited) for US EPA SBIR Phase I Program for Safer Chemicals, Nov. 2019 – Present
4. Review Panel Member (Invited) for ASPPH/ CDC Public Health Fellowship Program, Feb. 2018 – Present
5. External Expert Reviewer for USEPA Cincinnati and USEPA Corvallis, 2016 – Present

International

1. National Science Center of Poland, Expert Reviewer (2020-Present)
2. Research Grants Council (RGC) of Hong Kong, Expert Reviewer (2021-Present)
3. Advisory Board Member, Activist Summit, Nepal, 2020-2021
4. Editorial Board Member, Plants (2020-Present)

5. Editorial Board Member, EC Nutrition (2017-Present)

6. Expert Reviewer (Invited) for Peer Reviewed Journals (26; see list below)

Peer Reviewer (Ad Hoc) for International Journals

	Journal	Role	Year
1.	Process Safety and Envn. Protection (Elsevier)	Reviewer	2023 - present
2.	Ground Water and Sustainable Dev. (Elsevier)	Reviewer	2020 - present
3.	Plants (MDPI)	Reviewer	2020 - present
4.	SpringerPlus (Springer)	Reviewer	2020 - present
5.	Chemosphere (Elsevier)	Reviewer	2019 - present
6.	Plant Biology (Wiley)	Reviewer	2019 - present
7.	BMJ Open (BMJ)	Reviewer	2018 - present
8.	Scientific Reports (Nature)	Reviewer	2018 - present
9.	Environmental Science & Technology (ACS)	Reviewer	2017 - present
10.	Environmental Monitor. and Assess. (Springer)	Reviewer	2017 - present
11.	Environmental Pollution (Elsevier)	Reviewer	2017 - present
12.	International J. of Phytoremed. (Taylor & Francis)	Reviewer	2016 - present
13.	Environmental Research (Elsevier)	Reviewer	2016 - present
14.	Journal of Nanoparticle Research (Springer)	Reviewer	2016 - present
15.	Plant Physiology and Biochemistry (Elsevier)	Reviewer	2016 - present
16.	EC Nutrition (ECronicon)	Reviewer	2016 - present
17.	NanoImpact (Elsevier)	Reviewer	2014 - present
18.	RSC Advances (RSC)	Reviewer	2013 - present
19.	Analyst (RSC)	Reviewer	2013 - present
20.	CrystEngComm (RSC)	Reviewer	2013 - present
21.	New Journal of Chemistry (RSC)	Reviewer	2013 - present
22.	Archives of Agron. Soil Science (Taylor & Francis)	Reviewer	2013 - present
23.	Sensors (MDPI)	Reviewer	2013 - present
24.	Journal of Chemistry (Hindawi)	Reviewer	2013 - present
25.	African J. Biochem. Res. (Academic Journals)	Reviewer	2013 - present
26.	Science of The Total Environment (Elsevier)	Reviewer	2011 - present

PRROFESSIONAL MEMBERSHIPS

1.	2020-Present	Member, Sustainable Nanotechnology Organization (SNO)
2.	2020-Present	Member, South Carolina Mosquito Control Association
3.	2020-Present	Member, Mid-Atlantic Mosquito Control Association
4.	2019-2024	Member, North Carolina Agromedicine Institute (NCAI)
5.	2019-Present	Member, National Center for Faculty Development & Diversity (NCFDD)
6.	2018-Present	Member, Association of Inhalation Toxicologists (AIT)
7.	2015-Present	Member, Council on Undergraduate Research (CUR)
8.	2013-Present	Member, American Chemical Society (ACS)
9.	2010-Present	Member, Tennessee Environmental Health Association (TEHA)

10. 2010-2012 Member, Association for Environmental Health and Sciences Foundation (AEHS)

OTHER SIGNIFICANT HIGHLIGHTS

1. Dr. Pokhrel was interviewed by **various news outlets** on his research on Smart Nano-enabled Antiviral Agent (SNAT) against SARS-CoV-2. June 2022. Available at:

   https://www.witn.com/2022/06/21/ecu-researchers-study-breakthrough-covid-19-treatment/?fbclid=IwAR2gA28dTq8_lCR_Iw8ObEG7XuXkCis9Fkh7vTKqH49mgVbcMSa_aYrhWw4

   https://news.ecu.edu/2022/06/16/fighting-covid-19/?fbclid=IwAR1W-x1ke5r_s8VxOZzDGpm16KvkyM1UQkMD_-16LvWsUvnvvEeaMRbtrXw

   https://vimeo.com/720659454 (Password: ECU)

   https://www.reflector.com/news/local/ecu-researchers-explore-new-tech-for-treating-covid-virus/article_7e0a9153-60f8-5285-bb1a-263453c8d9ac.html

   https://spectrumlocalnews.com/nc/charlotte/news/2022/06/21/covid-nanotechnology

2. Dr. Pokhrel was interviewed by **WNCT 9** on the human health risk of diacetyl in electronic cigarettes. Feb. 26, 2021. Available at:

   https://www.wnct.com/on-your-side/health-watch/ecu-researchers-discuss-negative-health-risks-associated-with-e-cigarettes/

3. Dr. Pokhrel was featured in **The Daily Reflector** for his research in electronic cigarettes, Sunday-Monday, Feb. 28-March 1, 2021. Available at: https://www.reflector.com/news/local/ecu-notes-honors-college-builds-ecu-community-school-partnership/article_df65ad02-8a4d-5791-8a23-4fcddab6f68f.html

4. Dr. Pokhrel was featured in **The East Carolinian** for his research in electronic cigarettes, Feb. 25, 2021. Available at: http://www.piratemedia1.com/theeastcarolinian/article_f580b4e2-77ce-11eb-b952-7bfdb1f3b808.html

5. Dr. Pokhrel was featured in **ECU News**, Feb. 17, 2021 on E-cigarette flavoring risks. Available at: https://news.ecu.edu/2021/02/17/e-cigarette-flavoring-risks/

6. Dr. Pokhrel was interviewed by *Science* magazine on *Legionella* study. Feb 5th, 2018. Available at: http://www.sciencemag.org/Legionella_chlorine-residual

7. Dr. Pokhrel was quoted in *The Scientist* on *Legionella* study. Feb 7th, 2018. Available at: https://www.the-scientist.com/Legionnaires-Outbreak-Chlorine-Residual

8. Temple MPH student examines flaws in water lead testing system. June 8, 2017. Available at: http://www.aspph.org/temple-mph-student-examines-flaws-in-water-lead-testing-systems/

9. Temple researcher low footprint mosquito solution: Nanotechnology. Apr. 27, 2017. Available at: http://www.aspph.org/temple-researchers-low-footprint-malaria-solution-nanotechnology/?c=1

10. Grad Students take research to the interweb. April 18, 2017. Available at: http://cph.temple.edu/news/grad-students-take-research-interwebs
11. In the fight against Zika, could Nanotechnology be the solution? Dec. 15, 2016. Available at: https://cph.temple.edu/news/fight-against-zika-could-nanotechnology-be-solution
12. Big questions about tiny particles. May 27, 2016. Available at: https://cph.temple.edu/news/big-questions
13. Loofahs as water filters? May 20, 2016. Available at: https://cph.temple.edu/news/loofahs-water-filters
14. ETSU's College of Public Health alumnus Lok Pokhrel awarded "Outstanding Reviewer Award 2015"
    Available at: http://www.etsu.edu/news/collpub_health/college/pokhrel_022416.aspx
15. Temple research study indicates Roundup herbicide increases weed production. Oct. 7/8, 2015. (Available at: http://cph.temple.edu/news/research-study-roundup-found-increase-weed-production; http://www.aspph.org/temple-research-study-indicates-roundup-found-to-increase-weed-production/
16. Pokhrel's Nano-research highlighted in Royal Society of Chemistry News. Dec 3, 2013. Available at: http://blogs.rsc.org/en/2013/12/03/assessingtheeffectsofnaturalwaterchemistryonsilvernanoparticles/
17. Pokhrel's Nano-research was among the top 10 most accessed articles published in *Environmental Science: Nano* (Royal Society of Chemistry) in 2014 Available at: http://pubs.rsc.org/en/journals/articlecollectionlanding?sercode=en&themeid=fff0e27a
18. Research highlighted in RSC Environmental Science Nano Journal blog — Dec 3, 2013
19. Featured in National Academy of Sciences Summer Newsletter — Aug., 2013
20. Featured in Western Ecology Division, USEPA Newsletter — June 2-8, 2013
21. Featured in ASPH (Ass. of Schools of Public Health) Friday Letters — April 19, 2013
22. Featured in ETSU Accent, Faculty/Staff Newsletter Vol. 61, No. 1 — July 31, 2012
23. Featured in ETSU News — July 20, 2012
24. Featured in ASPPH Friday Letters — May 11, 2012
25. Featured in ASPPH Friday Letters — Oct. 22, 2011
26. Featured in ASPPH Friday Letters — June 17, 2011