

2024 Pilot Research Project (PRP) Symposium University of Cincinnati NIOSH Education and Research Center October 24-25, 2024



University of Cincinnati, Kettering Lab Complex

Scan the QR code to view the speaker bios, abstracts, and other event details and to download the event app

Use the email you registered with or event code ""hx0m5xdnwf" to access app



| 1:00pm – 5:00pm | Careers Workshop <i>Kettering Lab, G17</i> | Lab tours and Q&A meeting with current ERC graduate students. Workshop is for students interested in learning about and pursuing UCERC graduate programs. |
|--------------------|--|--|
| 4:00pm – 6:00pm | The Board for Global EHS Credentialing®(BGC®) Ethics Presentation Kehoe Auditorium | Jan Wachter, PhD Indiana University of Pennsylvania; Embry-Riddle Aeronautical University |
| 6:00pm – 8:00pm | Welcome Reception Kettering Lab Atrium & Lobby | All attendees welcome |

Thursday, October 24, 2024

Friday, October 25, 2024

| 7:30am | Registration & Breakfast <i>Kettering Lab Lobby</i> | | | |
|--------|---|---|--|--|
| 8:00am | Welcoming Remarks Kehoe Auditorium | Alex B Lentsch, PhD Jacob G. Schmidlapp Professor and Chair Department of Environmental and Public Health Sciences | | |
| 8:05am | Introduction of Education and Research Center & Pilot Research Project Program Kehoe Auditorium | Amit Bhattacharya, PhD, CPE, PRP Program Director University of Cincinnati, Environmental and Public Health Sciences | | |
| 8:10am | Mental Health and Suicide Among Veterinarians Kehoe Auditorium | Afton Erbe University of Cincinnati, College of Nursing | | |
| 8:30am | Assessing the Applicability of Methods to Analyze Metals in Toenails Kehoe Auditorium | Chang Geun Lee Purdue University, School of Health Sciences | | |
| 8:50am | Injury Trends for Adolescents with Early Childhood Manganese Exposure Kehoe Auditorium | Danielle McBride University of Kentucky, Epidemiology and Environmental Health | | |
| 9:10am | Developing Electromagnetic Shielding Textiles for Personal Protection Kehoe Auditorium | Prakash Giri University of Cincinnati, Mechanical and Materials Engineering | | |
| 9:30am | Poster Session 1 & Break Kettering Lab Atrium & Lobby | 2024-25 PRP Awardees and Other Invited Poster Presenters | | |

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| 10:10am | Introduction of Keynote Kehoe Auditorium | Amit Bhattacharya, PhD, CPE, ERC & PRP Program Director University of Cincinnati, Environmental and Public Health Sciences | | |
|---------|--|---|--|--|
| 10:15am | Keynote Presentation State of the Science for Workplace Violence in Healthcare Research Kehoe Auditorium | Gordon Gillespie, PhD, DNP, RN University of Cincinnati, College of Nursing | | |
| 11:00am | Cool Coat: An Advanced Wearable Thermal Management Solution for Harsh Environment Kehoe Auditorium | Qichen Fang University of Cincinnati, Chemical Engineering | | |
| 11:20am | Personal Air Sampling Incorporating Human Factor Ergonomics of Posture and Intensity Kehoe Auditorium | Ryan Bellacov University of Cincinnati, Industrial Hygiene | | |
| 11:40am | Sponsor Presentations Kehoe Auditorium | Ohio Association of Occupational Health Nurses | | |
| 12:00pm | Networking Lunch & Break <i>Kettering Lab Atrium & Lobby</i> | | | |
| 1:00pm | Impact of Workplace Design on the Health of Breastfeeding Women in Low-wage Jobs Kehoe Auditorium | Stephanie Villella University of Toledo, School of Population Health | | |
| 1:20pm | Assessing the Impact of Respirator Design and Demographics on the Performance of N95 Respirators Kehoe Auditorium | Xinyi Niu University of Cincinnati, Environmental and Public Health Sciences | | |
| 1:40pm | Poster Session 2 & Break (Vote for favorite poster and podium presenters) Kettering Lab Atrium & Lobby | 2024-25 PRP Awardees and Other Invited Poster Presenters | | |
| 2:20pm | Panel Discussion of the Podium Presentation Topics Moderator: Beverly Hittle, PhD Kehoe Auditorium | Amit Bhattacharya, Tom Huston, Sripriya Nannu Shankar, Yevgen Nazarenko University of Cincinnati | | |
| 3:10pm | BEST Award Presentations, Closing Remarks and Program Evaluation Kehoe Auditorium | Amit Bhattacharya, PhD, CPE, PRP Program Director University of Cincinnati, Environmental and Public Health Sciences | | |
| 3:30pm | PRP Steering Committee (Closed Meeting) Kettering Room 119 | All steering committee members | | |
| 3:30pm | Student Networking Gathering Meet in Lobby | All students welcome to join ERC trainees for an informal networking gathering off campus | | |





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2024-25 PRP Awardee Posters & Invited Posters

| # | Title | Presenter | University |
|----|--|---|--|
| 1 | 3D Printed Headforms for Evaluating Respirator Performance among Home Healthcare Workers | Justin Morrow | University of Cincinnati, Environmental & Public Health Sciences |
| 2 | Effects of Energy Recovery Ventilation on Nanoparticulate and Gaseous Indoor Air Pollution | Yevgen Nazarenko | University of Cincinnati, Environmental & Public Health Sciences |
| 3 | Spatial and Temporal Assessment of Secondhand Cigarette Smoke Exposure to Home Healthcare Workers | Sripriya Nannu Shankar | University of Cincinnati, Environmental & Public Health Sciences |
| 4 | Waging the Low Wage War: Differential Work Experiences of Low Wage Workers | Aarti Polavarapu | Bowling Green State University, Psychology |
| 5 | A Machine Learning Approach to Predicting Core Body Temperature | Israel Ajiboye & Sai Yeshwanth Vejendla | University of Cincinnati, Mechanical Engineering |
| 6 | Utilizing AI with Digital Human Modeling to Assess Risk of MSDs in Non-fireground Firefighter Activities | Susan Miller & Julie Boyd | Murray State University, Occupational Safety and Health |
| 7 | Evaluating the Role of Human Sweat in the Dermal Absorption of Inorganic Pb | Efosa Obariase | University of Cincinnati, Environmental & Public Health Sciences |
| 8 | Assessment of the Ergonomic Exposures for Home Healthcare Workers in the United Kingdom | Amour Dondi | University of Cincinnati, Environmental & Public Health Sciences |
| 9 | Ohio Farmworkers and Heat-Related Illness Prevention: A Focused Ethnography | Ashley Edgerly | University of Cincinnati, College of Nursing |
| 10 | Psychosocial Factors and Worker Health Impacts in the Museum and Cultural Heritage Fields | Mark Wilson | Purdue University, Health and Human Sciences |
| 11 | Comparison of Particulate Matter (PM) 2.5 Concentrations Using A Low-Cost Sensor with United States Environment Protection Agency (EPA) Measurements | Jung Hyun Lee | Purdue University, Health and Human Sciences |

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Important Links

Whova app instructions

- Scan the QR code at the top of the agenda and click "download event app"
- App includes speaker bios, agenda, abstracts, locations/maps, and all other event information
- If you registered ahead of time, use the email you registered with to access the event in the Whova app
- If you did not register in advance you can download the app in your app store and use the code "hx0m5xdnwf" to access the event
- Access the desktop version of the event: whova.com/portal/webapp/prps_202410/

Vote for your favorite presenter and poster: **surveymonkey.com/r/FLPGRP2** Complete the program evaluation to receive a CE certificate: **surveymonkey.com/r/LZHY57P** View other ERC upcoming events: **med.uc.edu/depart/eh/centers/erc/upcoming-events**

Continuing Education

Attendees are eligible for the continuing education options below, certificates will be emailed after signing in and completing the post-event evaluations.

- Meets BGC criteria for IH/CIH professionals; gobgc.org
- Thursday Ethics Session meets the BGC criteria for ethics points for IH/CIH professionals; gobgc.org
- Meets BCSP criteria for professional development conference CSP recertification points; bcsp.org/recertification

Social Media

Twitter

- Follow us on Twitter @uc_erc
- Use **#25PRP** in all of your PRP related comments and questions

Facebook

• Follow and like us on Facebook at University of Cincinnati NIOSH Education and Research Center

CERKL

- Subscribe to our CERKL pages at CERKL.com to get email newsletters about ERC program events, alumni news, job opportunities and more
- Subscribe to one or all of the ERC CERKL pages to receive updates via email: UC Education and Research Center, UC Environmental & Industrial Hygiene, UC Occupational Health Nursing, UC Occupational Medical Residency, UC Occupational Safety and Health Engineering

Instagram

• Follow us on Instagram @uofcincy_erc

Acknowledgements

Thank you to the Ohio Association of Occupational Health Nurses for sponsoring the PRP Symposium For more information about OAOHN visit their website: **oaohn.nursingnetwork.com**

Thank you to the PRP Steering Committee members and Graduate Student Committee for helping support the symposium and the PRP program.

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