The Pacific Basin Consortium for Environment and Health



November 2026 Newsletter

Editors

PBC Junior Board

Inside this Issue

Junior Board's Message 2

PBC Focus Meeting 3

PBC Conference 4

Webinars 5

Achievements/publications..... 6

PBC Board of Directors 9

November 2026

Junior Board's Message

Over the past 12 months, the Pacific Basin Consortium for Environment and Health (PBC) Junior Board has been reinvigorated by a talented and dedicated group of early-career researchers working together to support the Consortium's mission of advancing education, collaboration, and knowledge exchange on environmental health issues across our region.

We are proud to present this latest issue of the PBC newsletter, which showcases the Junior Board's recent achievements while highlighting the diverse activities, initiatives, and opportunities offered through the PBC. Through fostering connections between researchers, practitioners, and communities, the Junior Board continues to contribute to the growth and impact of the Consortium throughout the Pacific Basin.

At a time when climate change and emerging environmental threats are presenting unprecedented challenges to human health, the work of the PBC is more important than ever. By strengthening regional collaboration and supporting the next generation of environmental health leaders, we are helping to build the knowledge, partnerships, and solutions needed to protect the health of our communities now and into the future.

We hope you enjoy this issue and encourage you to stay connected with the PBC as we continue working together towards a healthier and more sustainable future.

Junior Board Members



Vilcins, Dwan



Al Nabhani, Khadija



Bushra, Tanjela



Ketema, Rahel



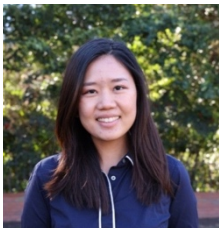
Kumar, Avinash



Mérida Ortega, Ángel



Nazli, Siti Nurshahida



Soerianto, Winny

PBC 2026 Focus Meeting



REGISTER NOW!

Brisbane - Australia

12th November 2026

Hosted by Centre for Children's Health Research Australia

Click Here to Register

PBC 2027 Conference



Mark Your Calendar!

Our next conference is coming to **Penang, Malaysia, September 11–14, 2027**! We're looking forward to gathering with you for another exciting event. Registration will open soon—stay tuned for updates!

In the meantime, explore highlights from our past conferences on our website. Stay tuned!

Past Conferences



2025 Conference: Bidirectional interactions between climate and health
28-31 May 2025, Ho Chi Minh City, Vietnam



2022 Conference: Environmental exposures in a changing climate
29 Aug-1 Sept 2022, Jeju Island, South Korea

PBC Supports Lead Prevention Week

Two WHO Collaborating Centers, One Shared Commitment to Children's Health

Members of the PBC Board of Directors are contributing to International Lead Poisoning Prevention Week, October 18–24, 2026, through the work of two WHO Collaborating Centres in Australia and Japan. These initiatives bring international expertise and regional perspectives to the urgent work of preventing lead exposure and protecting children's health.

International Lead Poisoning Prevention Week Webinar

As part of **International Lead Poisoning Prevention Week (18-24 October)**, the Children's Health and Environment Program and the WHO Collaborating Centre for Children's Health and Environment will be hosting a special webinar focused on protecting children from lead exposure.
The webinar will bring together international experts to discuss key issues in lead poisoning prevention and children's environmental health.

For more information and event details, please contact:
d.vilcins@uq.edu.au

Lead and Children's Health: Exposure, Health Effects, and Prevention in the Western Pacific Region

WHOCC-JPN-91 prepared and disseminated a webinar lecture entitled *"Lead and Children's Health: Exposure, Health Effects, and Prevention in the Western Pacific."* The lecture focuses on the characteristics and toxicity of lead, major sources and pathways of exposure, and the reasons why children are particularly vulnerable to lead exposure. It also highlights practical prevention and control measures to protect children's health, with a particular focus on the Western Pacific Region.

Website: JP: https://www.cehs.hokudai.ac.jp/whocc
EN: https://www.cehs.hokudai.ac.jp/en/whocc
YouTube for the webinar: https://www.youtube.com/watch?v=QUWsxxmJWPc

Presentations (Oral and Poster)

Dr. Tanjela Bushra presented a poster titled “Exploring food safety awareness: physicians’ knowledge, attitude, and practice in Bangladesh” at the Pacific Basin Consortium for Environment and Health 2025 Conference, “Bidirectional Interactions between Climate and Health” (28–31 May 2025, Ho Chi Minh City, Vietnam). The study explored how physicians in Bangladesh understand and practice food safety, an important link between environmental contamination and public health.

Dr. Avinash Kumar

Department of Biological Sciences, Louisiana State University, Baton Rouge, LA, March 2026. "Environmental Exposures and Lung Health: Mechanistic Insights from Combustion-Derived Particles to Disease".
SOT 65th Annual Meeting 2026, San Diego, CA and SEBM Annual Meeting, March 26, San Diego, CA. "Exposure to Hazardous Waste Emissions Alters Human Physiology: Findings from a Community-Based Pilot Study".
SOT 65th Annual Meeting, March 22-25, San Diego, CA and SEBM Annual Meeting, March 26, San Diego, CA. "Aryl hydrocarbon receptor signaling in club cells promotes Th17-driven lung injury following inhalation exposure to environmentally resistant free radicals".
SOT 65th Annual Meeting, March 22-25, San Diego, CA. "Cholesterol-mediated endotoxic liver injury is enhanced by sitagliptin in Sprague-Dawley rats".

Awards

Winny Soerianto, BS, University of North Carolina at Chapel Hill
2026 Celebrating Women in Toxicology (Graduate) Award, Women in Toxicology, SOT
2026 Mary Amdur Student Award, Inhalation and Respiratory Specialty Section, SOT

Publications

Latest Research from Dr. Antonio Pascale, Professor of the Center of Biomedical Sciences, University of Montevideo

Discover key insights into global e-waste management with "E-waste: Environmental and Health Challenges" by A. Pascale, C. Bares, and A. Laborde. Published in Elsevier’s *Encyclopedia of the Anthropocene*, this textbook chapter explores the exponential rise in electronic waste and its disproportionate impact on vulnerable communities in developing nations. It provides an essential overview of toxicant exposures, human health risks, airborne hazards, and effective prevention strategies. While it is not freely available online, a copy can be provided to student and ECR members of the PBC upon request antopascale@gmail.com.

Latest Research from Prof. Atsuko Ikeda, Faculty of Health Sciences, Hokkaido University

Prof. Ikeda and her team work on Vietnam informal e-waste village for health survey in collaboration with National Institute of Occupational and Environmental Health, Vietnam. Their research protocol has been published. Her team also work on chemical exposures and children's health. Please find the latest publications from their team:

1. Rahel Mesfin Ketema, Le Thanh Hai, Nguyen Van Son, Hien Thi Thu Ngo, Yi Zeng, Ayaka Yasuda, Megasari Marsela, Machiko Minatoya, Le Thai Ha, Binh Thi Ta, Van Thi Pham, Huyen Thi Nguyen, Tuan Van Pham Tran Hoai Son, Ha Lan Phuong, Phan Thi Thuy Chinh, Yu Ait Bamai, Reiko Kishi, **Atsuko Ikeda***. Investigation of EXposure to PlastiCizers among E-Waste RecycLing WorkErs aNd Their Health: Study protocol for cross-sectional assessment. Journal of Medical Internet Research (JMIR) Research Protocol. 2026;15:e96702, doi: 10.2196/96702
2. Yi Zeng, Yu Ait Bamai, Rahel Mesfin Ketema, Maarten Roggeman, Fatima den Ouden, Celine Gys, Ayaka Yasuda, Megasari Marsela, Sachiko Ito, Adrian Covaci, Reiko Kishi, **Atsuko Ikeda***. Associations of phthalate, organophosphate flame retardant, and bisphenol exposures with lifestyle behaviors and residential environmental factors among early adolescents: The Hokkaido Study. Environmental Research 026 Aug 27;308(Pt 1):125578. doi: 10.1016/j.envres.2026.125578.

Latest Research from Ángel Mérida-Ortega

1. Ugalde-Resano R, Mérida-Ortega Á, Cebrián ME, Núñez-Enríquez JC, Shamah-Levy T, Flores-Lujano J, López-Carrillo L. Childhood serum DDE concentrations and acute lymphoblastic leukemia in a high-exposure region of south-central Mexico. Cancer Epidemiol. 2026 Sep 29;105:103243. doi: 10.1016/j.canep.2026.103243. Epub ahead of print. PMID: 42810169.
2. Tang, S. J. T., Ugalde-Resano, R., Mérida-Ortega, Á., Rodriguez-Montoyo, P., Márquez-Acevedo, A., Cebrián, M. E., et al. (2026). Spatial distribution of organochlorine pesticide serum concentrations in Mexican children and adolescents living in and out the polluted Atoyac watershed basin. GeoHealth, 10, e2025GH001711. https://doi.org/10.1029/2025GH001711.
3. Ugalde-Resano R, Mérida-Ortega Á, Flores-Lujano J, Núñez-Enríquez JC, Cebrián ME, López-Carrillo L. Breastfeeding duration and serum organochlorine pesticides concentrations in young residents from two central-southern states of Mexico. Prev Med. 2026 Mar;204:108520. doi: 10.1016/j.ypmed.2026.108520. Epub 2026 Jan 26. PMID: 41605319.

Publications

Latest Research from Dr. Tanjela Bushra, Bangladesh Medical University

Dr. Tanjela Bushra, Research Associate in the Department of Public Health and Informatics at Bangladesh Medical University (formerly BSMMU), Dhaka, investigates how environmental, social and health-system factors shape health in Bangladesh. Her latest research explores sanitation and women's mental health in coastal communities, COVID-19 outcomes and healthcare worker well-being, hypertension management, and cervical cancer screening, providing evidence to support healthier communities in low- and middle-income settings.

1. Sanitation Insecurity and Women's Mental Health in a Coastal Upazila of Bangladesh: A Community-Based Cross-Sectional Study
   https://www.researchgate.net/publication/403766204_Sanitation_insecurity_and_Women's_mental_health_of_a_coastal_Upazila_in_Bangladesh_a_community-based_cross-sectional_study
   This community-based study surveyed 225 women aged 15–80 years in a coastal Upazila of Bangladesh to examine the link between sanitation insecurity and mental health. Sanitation insecurity was found to significantly affect women's mental health, drawing attention to the everyday sanitation challenges faced by women in climate-vulnerable coastal communities. The findings support gender-responsive water, sanitation and hygiene (WASH) interventions that consider women's mental well-being.
2. Clinical Outcome of Hospitalized COVID-19 Patients in Relation to COVID-Vaccination Status
   https://www.banglajol.info/index.php/BIRDEM/article/view/87560
   This study of 492 hospitalized COVID-19 patients in Bangladesh compared outcomes between vaccinated and unvaccinated individuals. Vaccination reduced the odds of severe illness by 68% and mortality by 82%, with lower rates of ICU admission among vaccinated patients. The findings reinforce the value of vaccination, particularly for patients with comorbidities.
3. Burnout among Physicians Working during the COVID-19 Pandemic in Bangladesh: A Hospital-Based Cross-Sectional Study
   https://www.banglajol.info/index.php/BJID/article/view/84714
   This study assessed burnout among 313 physicians working in five tertiary hospitals in Dhaka during the COVID-19 pandemic. More than half (57.5%) experienced severe burnout, with female doctors reporting higher levels and poor work–life balance emerging as the strongest predictor. The findings highlight the need for organizational and social support to protect the health workforce.
4. Role of the Health Belief Model in the Management of Hypertension: A Systematic Review https://doi.org/10.7759/cureus.94139
   This systematic review of 24 studies (6,106 participants) from low- and middle-income countries examined how the Health Belief Model relates to hypertension management. Interventions based on the model were associated with reduced blood pressure, improved medication adherence and better self-management. The findings support theory-driven behavioural interventions for hypertension control.
5. Diagnostic Evaluation of HPV DNA Test in Detecting Cervical Pre-Cancer: A Systematic Review
   https://posthumanism.co.uk/jp/article/view/3601
   This systematic review evaluated the performance of HPV DNA testing for detecting cervical pre-cancer. HPV DNA testing showed significantly higher sensitivity than cytology or visual inspection with acetic acid (VIA) for detecting CIN2+ lesions, with slightly lower specificity. The findings support HPV-based screening strategies for cervical cancer prevention.
6. Follow-Up Compliance in Retinopathy of Prematurity Care: A Bangladeshi Perspective
   https://www.jneonatalsurg.com/index.php/jns/article/view/8974
   This study examined follow-up compliance among preterm infants treated for retinopathy of prematurity (ROP) in Bangladesh. Among 950 screened infants, 288 required treatment, and compliance after intravitreal injection fell from 100% to 31.4% by 16 weeks. The findings highlight the need for stronger follow-up systems to protect the vision of preterm infants.

Latest Research from Dr. Avinash Kumar

1. Vilcins D, Nazli SN, Ketema RM, Kim I, Nabhani K, **Kumar A**, Mérida-Ortega Á. Current and Emerging Environmental Health Issues: Insights from the Junior Board Advisory. Global Perspectives on the Climate-Health Interface: Proceedings of the 20th Pacific Basin Consortium Conference, 28–31 May 2025, Ho Chi Minh, Vietnam. July 24, 2026.
   Summary- This publication summarizes insights from the Junior Board Advisory on current and emerging environmental health issues discussed at the 20th Pacific Basin Consortium Conference. It highlights priority areas at the intersection of climate change and health, with a focus on the perspectives of early-career researchers. The findings aim to inform future research directions and policy discussions in environmental health.
2. Pathak R, **Kumar A**, Ferrier A, Burk D, Cormier SA. Aryl hydrocarbon receptor in club cells drives Th17-mediated lung injury following inhalation exposure to environmentally persistent free radicals. Redox Biology Volume 92, May 2026, 104105. https://doi.org/10.1016/j.redox.2026.104105
   Summary- This study investigated how the aryl hydrocarbon receptor (AhR) in club cells contributes to lung injury following inhalation exposure to environmentally persistent free radicals (EPFRs). The findings demonstrate that AhR signaling in club cells drives Th17-mediated inflammatory responses in the lung. The research provides new mechanistic insight into how EPFR exposure may lead to respiratory diseases.
3. **Kumar A**, Nde D, Guo, C, Pathak R, Foley Fox, Ahmad S, Dangal P, Hasan F, Lard M, Aryal A, Mathieu-Campbell ME, Irving J, Ogunmusi O, Richmond-Bryant j, Lomnicki S, Khachatryan L, Cormier SA, Dugas T. (2026). A systematic review of environmentally persistent free radical (EPFR) formation, characteristics, and health effects: are there sufficient data for risk assessment? Journal of Toxicology and Environmental Health, Part B, 29(5), 358–378. https://doi.org/10.1080/10937404.2025.2602154
   Summary- This systematic review examined the formation, characteristics, and health effects of environmentally persistent free radicals (EPFRs) to assess whether current data are sufficient for risk assessment. The authors synthesized evidence across exposure sources and health outcomes, identifying key gaps in literature. The review highlights the need for standardized methods and further toxicological data to support regulatory decision-making.
4. **Kumar A**, Chuqi G, Sarumi Q, Courtney C, Campagna S, Richmond-Bryant J, Cormier SA. Proximity to a Hazardous Waste Thermal Treatment Facility Alters Human Physiology: A Community-Driven Pilot Study. Exp Biol Med (Maywood). 2025 Aug 15;250:10655. doi: 10.3389/ebm.2025.10655
   Summary- This community-driven pilot study explored whether living near a hazardous waste thermal treatment facility is associated with changes in human physiology. The findings suggest that proximity to the facility may alter physiological markers in residents. The research underscores the value of community-engaged approaches in investigating environmental health risks.

Latest Research from Children's Health and Environment Program

The Environmental Epidemiology Group within the Children's Health and Environment Program continues to investigate how environmental exposures affect health across the life course. Our latest research (listed below) explores the health impacts of bushfire smoke, environmental chemical exposures, and occupational risks, providing evidence to support healthier communities and environments.

From Barriers to Solutions: Exploring Knowledge and Health Protective Behaviors of Wildland Firefighters in Queensland, Australia

https://www.preprints.org/manuscript/202608.1585

This study explored firefighters' understanding of health risks from bushfire smoke and their use of protective measures. Firefighters were well aware of short-term health effects but had limited knowledge of long-term risks. The findings highlight opportunities to improve education, respiratory protection, and workplace health practices.

Oxidative Stress as a Pathway Linking Maternal Phthalate and Bisphenol Exposure to Childhood Allergy and Lung Function

https://www.sciencedirect.com/science/article/pii/S0013935126009382

This study examined whether oxidative stress may help explain how prenatal exposure to common environmental chemicals affects children's respiratory health. The findings provide new evidence on biological pathways linking maternal chemical exposures with childhood allergy and lung function. This research strengthens the case for reducing harmful chemical exposures during pregnancy.

The Effects of Bushfire Smoke Exposure on Oxidative Stress and Inflammatory Biomarkers: A Systematic Review

https://www.degruyterbrill.com/document/doi/10.1515/reveh-2025-0109/html

This systematic review examined how bushfire smoke exposure affects markers of inflammation and oxidative stress. IL-8 emerged as the most consistent biomarker associated with short-term smoke exposure. The findings help improve understanding of the biological mechanisms linking bushfire smoke with adverse health outcomes.

Blood Environmental Chemical Exposure Levels Among Adults with Chronic Kidney Disease: A Cross-Sectional NHANES Study

https://academic.oup.com/joneph/article/39/2/279/8685193

This study investigated environmental chemical exposures among adults with chronic kidney disease. Individuals with severe kidney disease had higher blood concentrations of lead and cadmium than those with normal kidney function. The findings highlight the importance of considering environmental exposures in kidney disease research and care.

PBC Board of Directors



Antonio Pascale
Chair (acting)



Rebecca Fry
Treasurer

PBC Board Members



Atsuko Ikeda



Budi Haryanto



Guofeng Shen



Indah Salami



Irma R. Makalinao



Lizbeth López-Carrillo



Mylene Cayetano



Paul Robinson



Rengaraj Selvaraj



Sengoda Rajamani



Shahriar Hossain



Le Thai Ha



Tahir Rafique

Zahir Islam



Dwan Vilcins

PBC Secretariat



Ulani Hearn



Laura Yi

PBC Website:

pbc@uq.edu.au