IOHA

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GLOBAL EXPOSURE MANAGER

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EDITOR'S LETTER

Dear readers,

As I write this, I'm sailing on the waters of the Great Barrier Reef, enjoying some time with my family and reflecting on the remarkable diversity of our profession. The stories in this issue span continents, technologies, industries and career stages, yet they are united by a common commitment to making workplaces healthier and safer.

This issue of GEM demonstrates just how broad and dynamic our profession has become.

Innovation features strongly throughout these pages. Emanuele Cauda introduces the IOHA Community of Practice on Sensor Technologies, a global initiative helping hygienists navigate the opportunities and challenges presented by particulate matter sensors. As new technologies become more accessible, the profession's role in ensuring data are interpreted appropriately and translated into meaningful prevention strategies becomes more important than ever.

Education, leadership and professional development are recurring themes in this edition. The Emerging Leaders Institute continues to demonstrate the power of investing in early-career professionals, with its first cohort already creating lasting international connections and contributing to professional associations around the world. Crossing Borders and IOHA are also launching a new webinar series that will explore how education, training and lived experience can help knowledge travel further and make our profession more accessible and inclusive.

Several articles showcase the strength of our professional community and the importance of coming together to share knowledge. Reports from AIDII's National Congress in Italy, the SOFHYT Forum in France, and MIHA's activities in Malaysia highlight vibrant national associations tackling emerging challenges ranging from PFAS and climate change to digital technologies, sustainability and workplace wellbeing. Looking ahead, ANOH 2026 in Mongolia and the ISRP Americas Conference in Montreal offer further opportunities for occupational hygienists to learn, connect and collaborate across borders.

This issue also reminds us that occupational hygiene continues to expand into new and sometimes unfamiliar territories. The recent IOHA webinar 'Radiation Risks Explained' demonstrated how the principles we use every day—anticipation, recognition, evaluation and

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control—remain highly relevant when addressing ionising radiation. The message is reassuring: radiation protection is not a niche discipline beyond the reach of hygienists, but an extension of the same risk-based approach that underpins our profession.

International collaboration remains a cornerstone of IOHA's work. Nancy Wilk's update highlights engagement with the Beryllium Health and Safety Committee and celebrates research addressing lead exposure in artisanal mining communities in Nigeria. Both examples demonstrate how partnerships, shared expertise and scientific evidence continue to improve worker health around the world.

I have been involved in a few hexavalent chromium (CrVi) jobs recently, so I welcome the article on Field Screening and Semi-Quantitative Analysis of Chromium VI by Neil O'Regan and hope to highlight the areas we find it more in the next issue. The article by Kirsty Thomas and myself on Biological Agents and Occupational Hygiene: An Exposure Pathway Problem for a Changing World remind us that occupational hygiene is continually evolving. Whether we are addressing infectious disease risks, emerging technologies, radiation, respirator performance, mining hazards or leadership development, the challenge remains the same: applying sound science, professional judgement and collaboration to protect workers.

GEM is built by its community. Thank you to all of our authors, reviewers, and editorial team members for sharing their knowledge and experiences. I hope this issue informs, inspires and perhaps encourages you to contribute your own stories and expertise to a future edition.

Julie Sullivan
Co-Editor, IOHA Global Exposure Manager

The editors acknowledge the use of artificial intelligence in assisting with editing this newsletter.

Biological Agents and Occupational Hygiene: An Exposure Pathway Problem for a Changing World

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Biological hazards occupy an unusual position within occupational and industrial hygiene. They are clearly workplace health hazards, yet they do not always sit comfortably within the exposure assessment models more commonly applied to chemical, physical and particulate agents. Biological agents may replicate, persist in reservoirs, vary in viability, transmit between hosts and produce disease in ways influenced not only by exposure, but also by infectivity, route of entry, host susceptibility, environmental conditions and behaviour.

This makes biological hazards a scientific and practical challenge for occupational hygiene. They may not have occupational exposure limits. Measurement may be difficult, delayed or poorly correlated with infection risk. Exposure may be episodic, heterogeneous and task-dependent. A single aerosol-generating task, contact event or failure in controls may be more significant than average exposure over a working day.

Recent public health events reinforce why this matters. The 2026 Andes hantavirus cluster linked to the MV Hondius cruise ship, the 2026 Bundibugyo virus disease outbreak in the Democratic Republic of the Congo and Uganda, and recent meningococcal disease outbreaks in close-contact populations are not equivalent in likelihood, severity or workplace relevance. However, they illustrate three exposure archetypes highly relevant to occupational hygiene: environmental or zoonotic exposure from a reservoir, high-consequence pathogen exposure in response settings, and human-to-human transmission in communal environments.

Their value lies not in suggesting that all workplaces face these risks directly, but in showing how biological hazards intersect with work through people, environments, tasks and systems.

Biological Agents as Occupational Hygiene Hazards

International occupational health guidance recognises biological agents as workplace hazards. EU-OSHA notes that occupational exposure to biological agents may be associated with infectious diseases, cancer and allergies, and that workers in sectors

such as healthcare, agriculture, veterinary services, cleaning and maintenance, sewage, waste management, gardening and laboratory work may be at particular risk.

This is important because biological hazards are not limited to laboratories, hospitals or deliberate microbiological work. They may arise wherever a credible source-pathway-receptor relationship exists. Sources may include humans, animals, contaminated water, waste, soil, dust, surfaces, sharps, bodily fluids, vectors, mould, or rodent-contaminated environments. Pathways may include inhalation, ingestion, inoculation, mucous membrane exposure, dermal contact, droplets, aerosols, contaminated surfaces or direct contact.

For occupational hygienists, the core logic remains familiar: anticipate the hazard, recognise the exposure pathway, evaluate the risk and support effective control. The difference is that biological agents often require decisions to be made under higher uncertainty. Detection does not always indicate viability or infectivity; absence of detection does not always exclude risk; and the relevant exposure event may be short-lived, localised or behaviourally mediated.

This is why biological hazard assessment should be framed less as a narrow infection-control issue and more as an exposure science problem.

Three Recent Signals, Three Exposure Archetypes

The first archetype is environmental or zoonotic exposure from a reservoir. The Andes hantavirus outbreak associated with the MV Hondius demonstrates how an environmental reservoir can become an international public health incident. WHO reported that Andes virus was linked to the cruise ship outbreak and that more than 600 contacts across 32 countries, territories and areas were being monitored or self-monitoring as of 22 May 2026. Andes virus is notable because it is one of the few hantaviruses capable of limited person-to-person transmission, although rodent exposure remains central to hantavirus ecology.

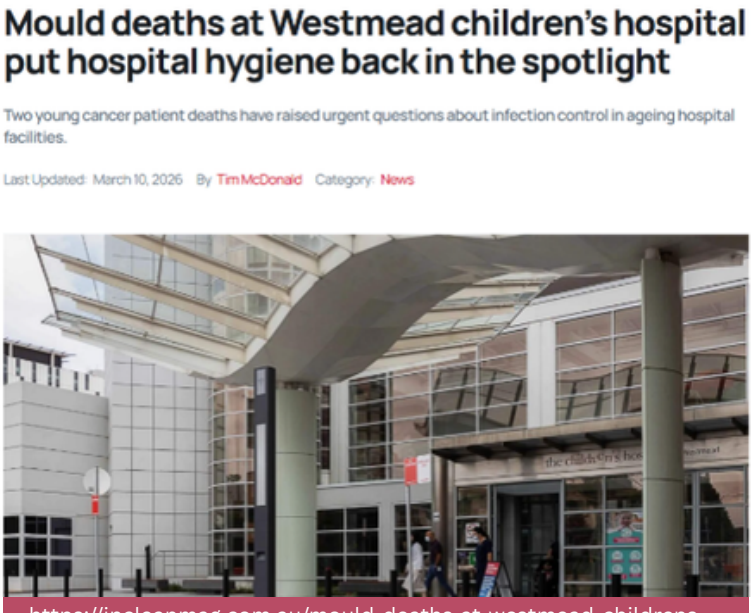
The occupational hygiene relevance extends beyond cruise ships. Rodent-contaminated environments may occur in agriculture, ports, shipping, warehousing, utilities, construction, demolition, waste management, facilities maintenance and poorly maintained buildings. Exposure may occur during sweeping, cleaning, refurbishment, confined-space entry, vegetation clearance, pest control or disturbance of contaminated materials. The control strategy is therefore pathway-focused: rodent exclusion, pre-task inspection, avoidance of dry sweeping, wet cleaning or disinfection where appropriate, ventilation, suitable respiratory and dermal protection, hygiene facilities, contaminated waste controls and worker information.

WorkSafeBC in British Colombia, Canada, provides an insightful resource focusing on exposure control: A Hantavirus Exposure Control Program for Employers and Workers | WorkSafeBC.

The second archetype is high-consequence biological exposure in response or care settings. The 2026 Bundibugyo virus disease outbreak in the Democratic Republic of the Congo and Uganda illustrates the importance of system reliability where biological risks are severe. WHO reported 896 confirmed cases and 232 deaths in DRC as of 17 June 2026, a case fatality ratio of 26%. The outbreak also involved geographical expansion and pressure on public health response systems.

For most workplaces globally, Bundibugyo virus disease is a low-likelihood hazard. However, the control lessons are highly relevant to healthcare, humanitarian response, laboratories, transport, emergency planning, waste handling, cleaning, decontamination and }public-facing response work. In these settings, protection depends on more than PPE selection. It depends on early recognition, triage, isolation, contact tracing, waste management, environmental cleaning, decontamination, PPE supply, donning and doffing competence, supervision, fatigue management and communication. Controls that are technically appropriate but operationally fragile may fail under pressure.

The importance of biological risk management extends beyond outbreak response. Recent events in Australian healthcare have highlighted the consequences of maintenance and construction activities undertaken near highly immunocompromised patients. In 2025-26, a cluster of invasive Aspergillus infections in transplant patients at Sydney's Royal Prince Alfred Hospital was linked to exposure risks associated with nearby construction works; and two patients subsequently died. Investigations highlighted the importance of adhering to established infection prevention and control measures during construction, renovation, and maintenance work in healthcare facilities.


Mould deaths at Westmead children's hospital put hospital hygiene back in the spotlight

Two young cancer patient deaths have raised urgent questions about infection control in ageing hospital facilities.

Last Updated: March 10, 2026 By Tim McDonald Category: News

https://incleanmag.com.au/mould-deaths-at-westmead-childrens-hospital-put-hospital-hygiene-back-in-the-spotlight/

These incidents demonstrate that biological hazards can arise from routine operations and facility changes, not only from recognised infectious disease outbreaks.

The third archetype is **human-to-human transmission in close-contact or communal settings.** Meningococcal disease outbreaks, including the 2026 cluster linked to Canterbury in the UK, demonstrate the relevance of shared accommodation, education, travel, social contact and communal environments. UKHSA reported 21 confirmed invasive meningococcal disease cases linked to Canterbury as of 1 April 2026, all involving meningococcal group B, with all cases hospitalised and two deaths reported.

For an international occupational hygiene audience, the issue is not the UK event itself, but the exposure model it illustrates. Many work settings involve close congregation: ships, offshore installations, military environments, residential training, universities, healthcare, migrant worker accommodation, mining camps, prisons and remote worksites. Where disease transmission is mediated by human contact, controls may include public health liaison, rapid communication, identification of close contacts, vaccination review, exclusion advice, hygiene measures and reassurance for those not at increased risk. Organisational response becomes part of the exposure control system.

These three archetypes are not interchangeable, but together they demonstrate the breadth of biological hazard scenarios that can intersect with work.

Zoonotic Risk and the One Health Interface

The wider epidemiological context makes this issue more important. WHO states that **more than 60% of emerging infectious diseases reported globally come from animals**, both wild and domestic, and links disease emergence to human activities and ecosystem stressors including animal trade, agriculture, livestock farming, urbanisation, extractive industries, climate change, habitat fragmentation and encroachment into wild areas.

CDC similarly estimates that more than six out of ten known infectious diseases in people can be spread from animals, and that three out of four new or emerging infectious diseases in people originate in animals.

These figures are directly relevant to occupational hygiene. Workers in agriculture, animal handling, veterinary practice, food production, pest control, waste management, construction, land remediation, environmental sampling, ports, transport, laboratories and humanitarian response may encounter biological agents through contact with animals, animal products, contaminated surfaces, aerosols, dusts, water, vectors or waste.

The One Health concept recognises the

interdependence of human, animal and environmental health. According to the U.S. Government Definition established in 2017, One Health is a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. For occupational hygiene, this is not simply a public health concept; it describes the interface at which many occupational exposures occur. *A One Health-informed occupational hygiene approach asks how environmental conditions, animal reservoirs, work tasks and human behaviours combine to create exposure opportunity.*

A Practical Occupational Hygiene Framework

A biological hazard framework for occupational hygiene does not require hygienists to become infectious disease physicians or microbiologists. It requires the discipline to apply its core strengths to a class of hazards that behave differently from many chemical and physical agents.

A practical framework should ask:

- What is the suspected or confirmed biological agent, and what is the likely source or reservoir?
- How might workers be exposed: inhalation (droplets, aerosols), ingestion, inoculation, dermal or mucous membrane contact (contaminated surfaces), vectors or direct contact?
- Which tasks could disturb, generate, aerosolise, spread or intensify exposure?
- Are any workers at increased risk because of immune status, pregnancy, vaccination status, underlying health conditions, training level or lack of familiarity with the hazard?
- What is known, what is assumed and what remains uncertain?
- Which controls interrupt the pathway most effectively, and are they feasible, maintained, understood and supervised?
- When should occupational health, infection prevention, public health, microbiology, environmental health, veterinary expertise or emergency response systems be involved?

This framework aligns with the established occupational hygiene model of anticipation, recognition, evaluation, control and confirm. It also acknowledges that biological agents often require precautionary judgement before complete evidence is available.

Conclusion

Biological agents are not peripheral to occupational hygiene. They combine exposure science with infectivity, viability, environmental persistence, host susceptibility, behaviour, systems reliability and public health response. They may not always be measurable in conventional ways, and they may require control decisions before definitive evidence is available.

Recent examples of Andes hantavirus linked to international travel, Bundibugyo virus disease in Central Africa and meningococcal disease in close-contact populations should not be treated as equivalent risks. However, they demonstrate the range of biological exposure pathways that can intersect with work.

As global disease ecology changes and workplaces remain connected through travel, trade, environmental disturbance and human interaction, biological hazards will continue to test the boundaries between occupational hygiene, occupational health, infection prevention, environmental health and public health.

The occupational hygiene contribution is clear: to understand exposure pathways, characterise uncertainty, evaluate controls and help organisations make proportionate, evidence-informed decisions that protect workers.

Indicative Sources

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Respiratory Protection: The Essentials

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Respiratory hazards affect not only workers but also the wider public — from wildfire smoke drifting across regions to mold in flood-damaged homes. Yet in occupational settings, the risks multiply: beyond familiar exposures like dust and solvent vapors, industrial hygienists now contend with bioaerosols, engineered nanoparticles, pharmaceutical dusts, and byproducts of additive manufacturing. Compounding this, as production shifts toward regions with less regulatory oversight, a growing share of the global workforce is exposed with little to no protection in place.

Respiratory protective equipment (RPE) exists to close that gap, but only when three conditions are met: the correct equipment is selected for the hazard, it is worn correctly, and it forms an adequate seal against the wearer's face. Absent any one of these, the equipment provides a false sense of security rather than actual protection. It is also worth distinguishing RPE from surgical masks and barrier face coverings, which are designed for source control (limiting what a wearer transmits to others) rather than filtration of what the wearer inhales, and are not engineered to stop the fine, inhalable particles that pose the greatest respiratory risk.

Respiratory protection is inherently complex, and regulatory requirements vary widely by setting. Workplaces that require RPE typically also require training, medical clearance, and fit testing, though the specific requirements vary considerably by jurisdiction and not every country mandates all three. For RPE to be effective, worker education is crucial and must include elements like understanding equipment type, fit and seal verification, and inspection of components before each use. A respirator that is worn improperly or has a compromised seal, a cracked component, or a saturated filter offers little practical protection regardless of its rated performance.

Categories of Respiratory Protection

Workplace RPE is generally divided into two categories, distinguished by the source of breathing air: air-purifying respirators (APR), which filter the

surrounding air as the wearer inhales, and supplied-air respirators (SAR), which deliver air from an independent, uncontaminated source.

APRs are further divided into three types. Disposable respirators, commonly known by their filtration classifications (N95, FFP2, FFP3, and similar) consist essentially of a filter medium that also forms the mask structure, typically constructed from layered non-woven material. Elastomeric respirators use a reusable rubber or silicone facepiece paired with replaceable filter cartridges, available in half-face (covering the nose and mouth) or full-face (covering the entire face) configurations, and can be decontaminated and reused across multiple shifts. Powered air-purifying respirators (PAPR) incorporate a battery-driven blower that delivers filtered air under positive pressure to a facepiece, helmet, or hood; loose-fitting hood variants are notable for not requiring fit testing, although tight-fitting designs generally provide a higher level of protection. A common limitation across all three APR types is that none supply external air — they are unsuitable for oxygen-deficient atmospheres, and each carries an upper concentration limit beyond which protection can no longer be assured.

SARs address the scenarios APRs cannot: atmospheres where oxygen concentration falls below roughly 19.5%, or where contamination is either severe or unknown, such as emergency response or confined-space entry. This category also comprises three types. Airline-supplied respirators draw breathing air through a hose from an external compressor or cylinder, with both air quality and flow rate requiring verification prior to use. Emergency escape breathing devices serve a single function: enabling egress from a suddenly hazardous atmosphere. They use a compact, self-contained air or oxygen supply designed to last only long enough to reach safety. Self-contained breathing apparatus (SCBA) extends this further, allowing the wearer to carry an independent air supply into a hazardous environment, complete a task, and exit again; the tradeoff is increased weight and bulk in exchange for a larger, though still finite, air reserve.

Standards, Verification, and Regulatory Variation

Regardless of category, RPE should carry certification from a recognized authority — NIOSH in the United States or applicable EN standards across the EU, for instance — and selection should involve someone with sufficient competence to match the equipment to the hazard profile. This is not a formality: the pandemic demonstrated the scale at which counterfeit, uncertified respirators can reach both consumer and occupational markets. Respirators should be visually inspected before each use, including new units, for cracks, distortion, or

material degradation, since even minor damage can compromise protection. Published protection factors should be treated as a starting point for a broader exposure assessment rather than a guarantee, given that no single filter or cartridge addresses every hazard type, and reported protection factors can vary depending on the source.

Regulatory coverage of RPE, including the requirement for fit testing, remains inconsistent internationally. Some jurisdictions tie requirements to specific substances — asbestos-related work in France and Finland, or silica exposure in Spain, for example — while others reference broader technical standards such as ISO 16975-3, applied with varying degrees of rigor across countries including Germany and Italy. The UK represents a comparatively mature regulatory approach: HSE guidance document INDG 479 mandates fit testing outright, and the UK is also where the fit test technician competency scheme, Fit2Fit, originated. That scheme is steadily expanding across the rest of Europe, and as more countries adopt it as a reference model, both the expectation that fit testing occurs and the standard for technician competence are likely to rise.

Closing Thought

Respiratory protective equipment only delivers protection when the appropriate type has been selected for the hazard, correctly fitted, properly worn, and adequately maintained. Certification and regulation establish a baseline, but real-world protection ultimately depends on informed decisions by the programs employers implement, and by the individuals, whether at work or elsewhere, who take the time to use their equipment correctly.

In the next issue:

A filtration rating on the box rarely tells the full story of how a disposable respirator performs on a real face.

Our next issue features Peter-John Jacobs (Sedulitas), who examines the design factors that actually determine performance — seal geometry, strap tension, and breathing resistance among them — and compares qualitative and quantitative fit testing methods in practical terms.

Don't miss it!

Field Screening and Semi-Quantitative Analysis of Chromium VI

Neil O'Regan, Managing Director at Shawcity, neil.oregan@shawcity.co.uk

Top Left: Incubator With Sample. Top Right: Cr (VI) Sample Tube Kit. Bottom Left: Sample Positive. Bottom Right Cr (VI) Test Kit Case

Swab Tests, Mini Lab Kits and the Question of Method Fitness

Hexavalent chromium, or Chromium VI, remains a substance of significant concern across occupational, industrial and environmental settings. Its toxicity, potential mobility and regulatory significance mean that detection and interpretation require care and accuracy. For many applications, accredited laboratory analysis remains the most robust route for producing traceable, defensible and formally reportable data.

However, the practical management of Chromium VI risk does not always begin with a formal laboratory result. In many situations, particularly during maintenance, refurbishment, demolition, incoming goods inspection or preliminary site assessment, the initial requirement is different. The question may not yet be, "What is the precise concentration?" but rather, "Is there an indication of Chromium VI that justifies further control, investigation or escalation?".

This is where field screening and semi-quantitative methods have become increasingly relevant. Chromium VI swab tests, such as those offered by MATinspired, and portable mini lab kits, such as those developed by SEEF, both occupy a space within the wider detection workflow. Neither should be regarded as a direct replacement for accredited laboratory analysis. The more useful question is whether they provide a quick and cost-effective service at a particular stage of the decision-making process.

Rapid Swab Testing: Screening Value or Oversimplification?

Chromium VI swab tests are designed for rapid surface screening, with results typically available in around one minute. They may be used on painted or coated metals, treated timber, masonry, concrete, plant, equipment, tooling and other surfaces where Chromium VI may be present as a component, contaminant or degradation product.

The primary strength of swab testing is immediacy. A simple field indication can support rapid decisions on whether to pause work, introduce controls, segregate materials, prioritise further sampling or escalate for more detailed assessment. For large-area or high-volume screening, this can be particularly useful.

However, the limitations are equally important. Swab tests are generally qualitative or semi-quantitative. Results may be influenced by surface condition, coating thickness, contamination, chemical interferences and the reactivity of the material being tested. Not all paints or coatings respond reliably to the reagent system, and false negatives remain a practical concern.

For a scientific audience, this raises an important issue. Is a rapid screening result valuable because it enables timely risk management, or problematic because it may be over-interpreted by non-specialists?

Mini Lab Kits: A More Informative Intermediate Step?

Portable mini lab kits provide a more structured on-site or near-site approach. With a typical analysis time of around one hour, they are slower than swab tests but may offer improved sensitivity, repeatability and semi-quantitative or quantitative output.

These kits may be used in similar contexts to swab testing, but they also lend themselves to surface wipe samples, extracts or more controlled sample preparation. They may be particularly valuable where laboratory access is delayed, where the site is remote, or where more informed decision-making is required before committing to a full programme of laboratory analysis.

The potential advantage is that they offer a middle ground: more analytical information than a simple swab test,

but faster feedback than an external laboratory route. This can support proportionate decisions, particularly where the operational question is whether a material, process or surface warrants further investigation or control.

Nevertheless, mini lab kits are not without constraints. Results are dependent on operator competence, sample preparation, reagent handling and interpretation. Traceability is generally more limited than in accredited laboratory analysis, and specific materials, including zinc-rich coatings, may interfere with the chemical reaction. For compliance, enforcement, contractual or formal reporting purposes, laboratory confirmation may still be necessary.

This raises a second question. Does the additional analytical detail make the mini lab kit the better service, or does the increased dependence on technique and interpretation require a proven level of competence?

Laboratory Analysis: The Benchmark, But Not Always the First Step?

Accredited laboratory analysis remains the benchmark where data must be reliable, traceable and defensible. It is essential for formal reporting, regulatory compliance, disputed findings, remediation validation and long-term management decisions.

The strength of laboratory analysis lies in methodological control, quality assurance and evidential value.

However, it may not always provide the most useful first response. Turnaround times, logistics and cost can be limiting factors, particularly where a large number of surfaces require initial assessment or where an immediate occupational hygiene decision is required.

This does not diminish the importance of laboratory analysis. Rather, it suggests that laboratory methods may be most effective when integrated into a staged strategy, rather than treated as the only meaningful point of detection.

Reframing the Question

The comparison between swab tests, mini lab kits and laboratory methods is often framed as a hierarchy of analytical quality. On that basis, laboratory analysis clearly remains superior. But from a service perspective, the hierarchy may be less straightforward.

Used in isolation, each method has limitations. Used within a clearly defined workflow, each may provide value.

- A swab test may offer the best service where the need is rapid triage.
- A mini lab kit may offer the best service where more detailed on-site information is required.
- Accredited laboratory analysis may offer the best service where formal certainty and defensibility are required.

The challenge is not simply to select the most technically advanced method. It is to select the method that is fit for the question being asked.

Perhaps the key consideration is not “Which method is best?” but:

What decision will be made from the result, and how much certainty is required to make that decision responsibly?

For Chromium VI management, the quality of the service may therefore depend less on the test itself and more on the competence with which it is selected, applied and interpreted.

The thought-provoking question for practitioners is this:

Should we continue to view field methods as secondary to laboratory analysis, or should we recognise them as distinct decision-support tools within a more responsive and proportionate Chromium VI assessment strategy?

Kirsty Thomas, Director of Services (Training & Occupational Hygiene), kirsty.thomas@ghtechnical.com

Looking ahead, Crossing Borders is delighted to be developing a trio of webinars in partnership with IOHA, who will be hosting the series. The first session will bring together Naadiya Mundy, Occupational Hygiene trainer and consultant, and Gavin Lumsden, FE consultant, teacher-educator and author, to explore what we can learn from education, training and lived experience when helping knowledge travel further. With themes linked to widening access, supporting trainers and creating more inclusive routes into occupational and industrial hygiene, the series aims to create space for open, practical conversations that connect people, ideas and experience across borders.

Crossing Borders Spotlight: Sharing the Story of Occupational Hygiene Earlier

Lee Heffernan, BP IH Director, recently had the opportunity to volunteer at a state primary school in central London, delivering a Careers talk to two groups of pupils. It was his first time doing this, and something he described as hugely rewarding. The school was very close to where he was born and grew up in Battersea, making it a real full-circle moment to return to the area, this time sharing his own career journey.

Lee spoke about his varied career across environmental and occupational health, from working with trains and planes to supporting safe operations on BP ships. The questions from the pupils were fantastic, particularly given their young age, and showed just how naturally curious children can be when introduced to the world of work in a relatable way.

What stood out most was the energy, curiosity and enthusiasm in the room. It was a powerful reminder that simply sharing our stories can have an impact, especially at an age when career paths still feel wide open and young people are beginning to understand the different possibilities available to them.

From a Crossing Borders perspective, this is exactly the kind of visibility our profession needs more of. Occupational and industrial hygiene can sometimes feel hidden behind technical language, specialist qualifications and industry-specific routes. Yet at its heart, it is about people, health, work, environments and prevention. Themes that can be understood by anyone when explained in the right way.

School outreach does not need to be complicated. Sometimes the most valuable thing we can do is show young people that careers in occupational hygiene exist, that the profession welcomes people from varied backgrounds, and that there are roles where science, problem-solving, communication and care for others come together.

Lee's experience is a reminder that outreach starts with a conversation. The world needs more occupational and industrial hygienists, but future hygienists cannot aspire to roles they have never heard of. By stepping into schools, colleges, community groups and career spaces, we can help make the profession more visible, more accessible and more human.

Crossing Borders would encourage anyone working in occupational or industrial hygiene to consider sharing their story. Whether through a school visit, a Careers talk, a mentoring conversation or a short case study, every contribution helps good work travel further.

The Hygiene Chronicles Update

Mary Cameron (United Kingdom) and Naadiya Mundy (South Africa) created The Occupational Hygiene Chronicles as a fun and accessible way to raise awareness of occupational hygiene, while also supporting people developing their careers in the profession. The OH Chronicles was features in a previous issue of GEM here: GEM magazine: Jan - Apr 25

So far, they have produced two volumes, each containing six issues. Volume One introduced the principles of occupational hygiene, while Volume Two focused on a strategic approach to assessing airborne hazards, using illustrated stories to bring workplace exposure assessment to life.

Alongside sharing knowledge, the comic has also become a way to fund training opportunities. Through printed comic sales and donations, the initiative has raised over £750, directly funding bursaries for candidates to sit an OHTA or BOHS M/W500 module. Bursary winners are selected at random through a raffle, helping keep the process simple, fair and open.

To date, the initiative has supported six bursary winners, thanks to funds raised through the comic and the generous additional support of BOHS and OHTA. Those supported so far have all been Africa-based, including candidates from Kenya, Eswatini, South Africa, Botswana and Namibia.

The donors, BOHS and OHTA, deserve huge thanks for helping fund these bursaries, as does Nexam Pty Ltd for sponsoring the remainder fee for course delivery. The comic will continue into Volume Three, which will focus on the health effects of exposure. Mary and Naadiya hope that many more bursaries can continue to be funded, providing ongoing support for budding occupational hygienists to access training and qualifications.

MIHA 2026 Highlights: Knowledge Café, Leadership Transition & MIHA.ICE'26

Marina Zainal Farid, CIH, CPIH, President, Malaysian Industrial Hygiene Association, admin@miha2u.org

MIHA Industrial Hygiene Knowledge Café, Raya Gathering & 24th Annual General Meeting 2026

The Malaysian Industrial Hygiene Association (MIHA) successfully hosted its Industrial Hygiene Knowledge Café (IHKC), followed by a festive Raya Gathering luncheon and the 24th Annual General Meeting (AGM) on 31 March 2026 at KL International Hotel, Kuala Lumpur. The event brought together industry professionals, practitioners, academicians, and stakeholders within the Occupational Safety and Health (OSH) community for a meaningful day of knowledge-sharing, networking, and celebration.

The programme commenced with registration and welcome refreshments, creating a warm and engaging atmosphere as participants reconnected in the spirit of Hari Raya Aidilfitri. The official opening ceremony featured welcoming remarks by MIHA President, Marina Zainal Farid, CIH, CPIH, who reaffirmed MIHA's continuous commitment towards advancing Industrial Hygiene practices and strengthening the OSH fraternity in Malaysia. Her address emphasized the importance of collaboration, professional development, and alignment with national OSH priorities

A key highlight of the event was the insightful presentation by Ir. Hj. Rizal Azizi Ghazali from the Department of Occupational Safety and Health (DOSH) Malaysia, titled "DOSH Chemical Management Division's Roles in Past OSHMP and the Roadmap to OSHMP 2030." The session reflected on the achievements of previous Occupational Safety and Health Master Plans (OSHMP) while outlining strategic directions and national aspirations towards OSHMP 2030, reinforcing Malaysia's commitment to safer and healthier workplaces.

Following a tea break and group photography session, the technical sharing sessions continued under the theme "Prevention through Design," featuring distinguished speakers from various industries:

- Syariful Izam Abdul Hamid (SI Acoustic Sdn. Bhd.) shared insights on effective engineering controls through the application of SoundPLAN noise modelling and predictive approaches to occupational noise risk management.
- M. Hafizul Hilmi (Saudi Aramco) presented on ergonomics perspectives, highlighting the importance of human-centered

- design in preventing workplace injuries and improving employee wellbeing.
- Masliyana Izzati Ismail (Texas Instruments) showcased practical applications of Prevention through Design within manufacturing settings, demonstrating how proactive design strategies can enhance both safety and operational productivity.

Upon the conclusion of the IHKC sessions, participants gathered for a Raya luncheon featuring traditional festive delicacies, fostering stronger professional relationships in a relaxed and celebratory environment.

The afternoon session then transitioned into the MIHA 24th Annual General Meeting (AGM), where members reviewed the association's achievements, discussed strategic initiatives, and aligned future directions aimed at further advancing the Industrial Hygiene profession in Malaysia.

Congratulations to the Newly Appointed MIHA Leadership Team (2026–2028)

Special Appreciation

MIHA also extends its deepest appreciation to Mdm. Noormahani Harun for her remarkable 15 years of dedication and invaluable contributions to the association. Her leadership, commitment, and unwavering support have greatly shaped MIHA's growth and inspired many within the Industrial Hygiene community. We wish her continued success and happiness in her future endeavors.

The day concluded with a networking session, encouraging meaningful discussions, professional exchanges, and stronger collaboration among attendees. Overall, the MIHA IHKC, Raya Gathering, and 24th AGM 2026 was a resounding success, seamlessly integrating technical knowledge-sharing, strategic dialogue, leadership transition, and festive celebration - further reinforcing MIHA's role as a leading platform for advancing Occupational Safety and Health in Malaysia.

Group photo: MIHA Industrial Hygiene Knowledge Café, Raya Gathering & 24th Annual General Meeting 2026.

MIHA 1st Committee Meeting for the 2026/2027 Term

Following the successful appointment of the new leadership lineup, MIHA successfully convened its 1st Committee Meeting for the 2026/2027 term on 7 May 2026. The meeting gathered dedicated committee members committed to strengthening Industrial Hygiene initiatives and expanding MIHA's impact within the OSH industry.

The session marked an important milestone with the introduction and enhancement of several portfolios aimed at supporting professional development, technical programmes, industry collaboration, membership engagement, and the long-term growth of MIHA.

Congratulations are extended to all newly appointed committee members on their respective portfolios. MIHA looks forward to your valuable contributions and continued commitment in driving the association forward. The meeting also included a special birthday celebration for MIHA President, Marina Zainal Farid, CIH, CPIH, adding a warm and memorable touch to the session.

Group Photo: MIHA 1st Committee Meeting for the 2026/2027 Term

A look back at the SOFHYT 2026 Forum: two days at the heart of occupational health issues

Kevin Vieira, Forum Committee Member, SOFHYT, kevin.vieira@toxilabo.fr
Nathalie Argentin, President, SOFHYT, presidence@sofhyt.org

On June 8 and 9, 2026, the French Society of Occupational Hygienists (SOFHYT) brought together prevention stakeholders in Paris for its annual forum, a now essential event for occupational health and hygiene professionals.

Over two days filled with discussions, conferences, and feedback sessions, the event fully delivered on its promise: "Knowing, Sharing, Acting" focusing on current and future challenges in workplace prevention.

Topics at the Heart of Current Concerns
The program offered a comprehensive overview of the challenges facing HSE (Health, Safety, Environment) professionals, including:

- **chemical risk** management and associated assessment tools,
- the application of the **CMR** (Carcinogenic, Mutagenic, Reprotoxic) decree and its regulatory implications,
- emerging issues related to **PFAS** (Per- and polyfluoroalkyl substances),
- the integration of human resources into industrial hygiene processes,
- prevention of **maternity-related risks in the workplace**, and
- biological and environmental risks, particularly those related to **pandemics and climate change**.

These presentations highlighted the increasing complexity of occupational exposures, as well as the need for multidisciplinary and integrated approaches.

Space for Exchange and Sharing Experiences

Beyond the conferences, the SOFHYT Forum distinguished itself through the richness of its discussions: roundtables, peer-to-peer discussions, and the presence of numerous partners fostered the sharing of best practices and the development of professional networks.
As in previous years, foreign Occupational Hygienists also participated in the event. This year, representatives from Belgium, Switzerland as well as Canada and Brazil attended to hear about French concerns and to share experiences from their respective countries.

Feedback from the field provided concrete examples of operational challenges, as well as innovative solutions implemented in companies.

Widespread Satisfaction

The post-forum survey confirms participants' enthusiasm, with a very high level of overall satisfaction and

robust engagement with the content presented. The quality of the presentations, the diversity of topics, and the opportunities for discussion were particularly appreciated, with 100% of respondents indicating they would recommend the event to their peers.

A Collective Dynamic Serving Prevention
This edition confirms SOFHYT's central role in fostering the occupational hygiene community and disseminating knowledge. It also highlights a clear and growing trend: occupational health prevention is evolving towards more comprehensive, proactive, and collaborative approaches.

Picture by A. Bencib. From left to right: Jerome Lavoue (Canada), Ana Gabriela Maia (Brazil), Vincent Perret (Switzerland), Nathalie Argentin (France), Fabian Lejeune (Belgium)

The Italian Association AIDII Brings Occupational Hygiene to Bologna: Highlights from the 42nd National Congress

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More than 250 professionals, researchers, and practitioners gathered in Bologna from 17 to 19 June 2026 for the 42nd National Congress of Industrial and Environmental Hygiene, organized by the Italian Association of Industrial Hygienists (AIDII). Over three days, the scientific programme included 17 scientific sessions, 117 contributions, and 30 posters, confirming the vitality of the Italian occupational and environmental hygiene community and its growing international engagement.

Bologna provided a highly symbolic and welcoming setting for the meeting. The city is traditionally known in Italy as La Dotta, La Grassa e La Rossa - “the Learned, the Fat and the Red”. La Dotta refers to the University of Bologna, widely regarded as the oldest university in the Western world and a symbol of the city’s long-standing academic and scientific tradition. La Grassa celebrates Bologna’s renowned food culture, rooted in the traditional and iconic dishes of Emilia-Romagna. La Rossa evokes both the warm colours of Bologna’s brick architecture, porticoes, and terracotta rooftops, which shape the distinctive character of its historic city centre, and the city’s civic history and long tradition of social and political engagement. This combination of science, culture, history, and community spirit made Bologna an especially appropriate location for a Congress focused on the evolving role of occupational and environmental hygiene in protecting health in a changing world of work.

The Congress was preceded by a free pre-congress seminar entitled “Health and Safety at Work: Experiences in Comparison”, organized by the AIDII Emilia-Romagna and Tuscany Territorial Section. The seminar was conceived as a practical and application-oriented opening event before the main scientific sessions. It brought together experts from leading Italian industrial, institutional, academic and professional contexts, showing how occupational hygiene and prevention principles are applied in complex and diverse working environments. Contributions addressed sectors and issues of high relevance for the Italian prevention system, including the ceramic industry, occupational health and safety management in large companies, energy and infrastructure networks, the automotive sector, university-based research, industrial hygiene consultancy, public institutions and professional engineering bodies. Topics included respirable crystalline silica, occupational health and safety management systems, noise exposure mitigation, confined spaces, microclimate, reprotoxic substances in industrial settings, and electromagnetic fields. This opening event reflected one of the distinctive features of AIDII: the ability to connect scientific knowledge, regulatory developments, field experience, and practical prevention.

The main Congress programme reflected the breadth and evolution of occupational and environmental hygiene, combining consolidated areas of professional practice with emerging scientific and technological challenges. The discussions reflected a profession currently facing profound changes driven by digitalisation, new materials, changing patterns of work, and increasing expectations regarding sustainability and worker well-being. The sessions addressed key topics such as carcinogenic, mutagenic and reprotoxic agents; asbestos and other fibrous materials; chemical risk assessment and biological monitoring; physical agents and ergonomics; healthcare and socio-sanitary settings; and the interaction between technical, environmental and organizational determinants of risk.

Some sessions were organized in collaboration with major Italian institutional partners, including the National Institute for Insurance against Accidents at Work (INAIL), the Italian public body involved in workers’ compensation, prevention, research and training; ARPAE Emilia-Romagna, the Regional Agency for Prevention, Environment and Energy; and AssoARPA, the Italian association of regional and provincial environmental protection agencies. Particular attention was also given to air quality in working and living environments, industrial emissions, diesel exhaust, and the complex links between occupational exposures, environmental pressures and public health. Innovation was a cross-cutting theme throughout the programme. Several contributions explored new methodological and technological approaches for exposure assessment, including direct-reading instruments, sensors, modelling tools, digital technologies, artificial intelligence, and integrated strategies for evaluating combined and aggregate exposures. These discussions highlighted the increasing need for occupational

hygienists to combine robust measurement methods, interpretation of complex exposure scenarios, and practical prevention-oriented decision-making.

A recurring theme throughout the Congress was the need to strengthen the bridge between occupational hygiene and environmental hygiene. Many current challenges - from climate change and heat stress to air pollution, odours, energy transition, and the impact of outdoor environmental factors on indoor and occupational settings - require professionals able to interpret exposure across traditional boundaries. The Congress therefore provided a platform to discuss how occupational hygienists can contribute not only to compliance and measurement, but also to broader prevention strategies, sustainability, and public health.
The international dimension was particularly important. The simultaneous presence of the IOHA Board and representatives of the international occupational hygiene community was a distinctive feature of the 2026 Congress, creating a unique opportunity to strengthen ties between the Italian and global occupational hygiene communities. AIDII was pleased to welcome Matthew Olota, Kerry Cheung, Nancy Wilk, Samantha Connell, Andre Winkes, and Emanuele Cauda. Their participation, supported locally by Mariella Carrieri, AIDII representative on the IOHA Board, contributed significantly to discussions on professional development and shared challenges, including competency frameworks, international collaboration, capacity building, and the visibility of occupational hygiene as a profession. Immediately following the Congress, Bologna also hosted the IOHA Board meeting. The presence of IOHA representatives sent a strong message to students and early-career professionals, highlighting occupational hygiene as a scientific and professional community with international reach and shared values.

One of the most meaningful moments of the Congress was the Young Industrial Hygienists Competition, a long-standing AIDII initiative dedicated to early-career researchers and professionals. Now in its 13th edition, the competition has become an important platform for young scientists and practitioners to present original work, receive feedback from the occupational hygiene community, and become more actively involved in the life of the Association. The 2026 award was presented to Valentina Schino from the University of Bari for her contribution on occupational exposure to mixtures of microplastics and the assessment of cytotoxicity in a human cellular model. Her work offered a timely example of how a new generation of hygienists is addressing emerging hazards through innovative experimental approaches. Beyond the award itself, the competition reflected the quality, enthusiasm, and scientific maturity of early-career professionals in occupational and environmental hygiene. In a period marked by emerging risk agents, new technologies, complex exposure scenarios, and increasing expectations for prevention, supporting young professionals is more than a matter of recognition. It is an essential investment in the future capacity of occupational hygiene to protect workers' health.

The Congress was also an important moment for association life. AIDII held its members' meeting, while the Institute for the Certification of Prevention Professionals (ICFP) held its assembly. These moments provided opportunities to discuss the strategic development of the Association, professional certification, communication with members, technical documents, training activities, and future events. The Congress also offered space for interaction with sponsors and technical partners, whose participation supported dialogue on instruments, methods, and practical solutions for exposure assessment and control. Beyond the scientific programme, the social events and informal networking moments helped create a warm and constructive atmosphere. Participants had the opportunity to meet colleagues, exchange experiences, develop collaborations, and strengthen professional relationships. This human dimension remains central to AIDII congresses: occupational hygiene is grounded in science, but it grows through people, shared experiences, and communities of practice.

The scientific contributions presented at the 42nd National Congress will be published in the Italian Journal of Occupational and Environmental Hygiene (IJOEHY), the peer-reviewed scientific journal of AIDII. This will ensure that the work presented in Bologna remains available to the occupational and environmental hygiene community and contributes to the broader dissemination of methods, experiences, and research developed within the Congress. In parallel, AIDII continued to communicate the event through its website and social media channels, including LinkedIn, Facebook, Instagram, and the dedicated Congress channel, helping to reach members, students, professionals, institutions, and the broader occupational health and safety community.

The Bologna Congress highlighted the growing strategic importance of industrial and environmental hygiene in addressing both traditional occupational risks and emerging global challenges. It also showed that professional associations have an important role in creating spaces where science, practice, institutions, industry, and young professionals can meet. AIDII is grateful to all participants, speakers, sponsors, organizers, volunteers, and international guests who contributed to the success of the event.

Following the Bologna Congress, AIDII will continue its programme of scientific and professional activities with the Conference on Environmental and Occupational Hygiene, scheduled to take place in October 2026 in Abano Terme. The next AIDII National Congress is planned for June 2027, providing another opportunity for the Italian and international occupational hygiene community to meet, exchange experiences, and discuss emerging developments in the field. For more information, please visit the websites of AIDII (www.aidii.it), ICFP (www.icfp.it), and IJOEHY, AIDII's scientific journal (www.ijoehy.it).

Photo captions

Photo 1. Discussion with participants during a scientific session of the 42nd AIDII National Congress, Bologna, 17 June 2026, with Emanuele Cauda contributing to the exchange. Photographer: Alessia Borghi. Used with permission.

The scientific contributions presented at the 42nd National Congress will be published in the Italian Journal of Occupational and Environmental Hygiene (IJOEHY), the peer-reviewed scientific journal of AIDII. This will ensure that the work presented in Bologna remains available to the occupational and environmental hygiene community and contributes to the broader dissemination of methods, experiences, and research developed within the Congress. In parallel, AIDII continued to

Photo 2. AIDII and IOHA representatives during the 42nd AIDII National Congress in Bologna. People pictured from left to right: Matthew Olota, Mariella Carrieri, Samantha Connell, Kerry Cheung, Emanuele Cauda, Nancy Wilk, André Winkes. Photographer: Alessia Borghi. Used with permission.

Photo 3. Young Industrial Hygienists Competition award ceremony. Valentina Schino received the 2026 award for her contribution on microplastics and cytotoxicity in a human cellular model. Photographer: Alessia Borghi. Used with permission.

Advancing Occupational Hygiene Through Global Collaboration: The IOHA Community of Practice on Sensor Technologies

Emanuele Cauda, PhD, Chair, IOHA Technical Committee and COP on Sensor Technologies for PM, ecauda@apieceofthepuzzlellc.com

Occupational hygienists around the world are increasingly exploring how sensor technologies can support the anticipation, recognition, evaluation, control, and confirmation of workplace hazards. In particular, advances in particulate matter (PM) sensor technologies have created new opportunities to better understand workplace exposures, identify high-exposure activities, evaluate controls, and communicate risk.

At the same time, these technologies raise important questions. How should PM sensors be selected? What are their limitations? How should the data they generate be interpreted? And how can occupational hygienists ensure that these technologies are used appropriately and responsibly in practice?

Recognizing both the opportunities and challenges associated with these rapidly evolving technologies, the International Occupational Hygiene Association (IOHA) established the Community of Practice (COP) on Sensor Technologies in 2024.

A Global Community Addressing a Global Need

IOHA was founded to improve, promote, and develop occupational hygiene worldwide through collaboration among its member organizations. With occupational hazards transcending national borders, there is increasing recognition that many of the challenges facing the profession are global in nature and are best addressed through international cooperation.
Sensor technologies represent one such challenge.

Advances in technology have resulted in a growing number of commercially available PM sensors that are becoming increasingly affordable, robust, and accessible. Around the world, occupational hygienists, researchers, and organizations are exploring how these technologies can be integrated into occupational hygiene practice.

However, approaches to sensor adoption, training, and guidance vary considerably across countries and regions. Many organizations are independently developing guidance, conducting research, and sharing practical experiences. While these efforts are valuable, there is also a need for a global forum where knowledge can be shared, lessons learned can be exchanged, and common challenges can be discussed.

The IOHA Community of Practice was established to provide that forum.

Currently comprising representatives from national associations and organizations from across the globe, the COP brings together practitioners, researchers, and

subject matter experts to share experiences, discuss emerging issues, and promote the generation, dissemination, and harmonization of knowledge related to PM sensor technologies in occupational hygiene.

Importantly, the COP does not establish standards or make regulatory decisions on behalf of the profession. Rather, it serves as a collaborative platform that supports the exchange of ideas, identifies areas where further work is needed, and helps connect the many activities already taking place internationally.

Why PM Sensors Matter

PM sensor technologies offer several potential advantages for occupational hygiene practice.

Unlike traditional approaches that rely on integrated sampling and subsequent laboratory analysis, sensor technologies can provide timely and in-time information on changes in airborne particulate concentrations. This capability can assist occupational hygienists in identifying tasks associated with elevated exposures, understanding exposure variability throughout the work shift, evaluating the effectiveness of controls, and supporting hazard mapping activities.

The ability to collect data over extended periods may also provide valuable insights into day-to-day variability and changing workplace conditions that may otherwise go unrecognized.

However, PM sensors are not a replacement for traditional exposure assessment methods, nor are they currently accepted in most jurisdictions for demonstrating regulatory compliance.

Perhaps most importantly, sensor-generated data require context.

The interpretation of sensor outputs depends on an understanding of the workplace, work tasks, particle characteristics, process conditions, and the limitations of the technology itself. Occupational hygienists play a critical role in ensuring that data generated by these devices are interpreted appropriately and translated into meaningful risk management actions.

As one COP member observed, "Hygienists have the opportunity and responsibility to evolve and to consider the use of all tools potentially available to accomplish the assessment and control of risk."

Developing Global Guidance for Practice

One of the first major initiatives of the COP has been the development of an IOHA white paper titled: **"Sensor Technologies for Aerosol Monitoring in the Frame of Occupational Hygiene."**

The white paper aims to provide occupational hygienists with practical considerations for the selection, adoption, and application of PM sensor technologies.

Rather than focusing solely on technical specifications, the document considers how sensors can support occupational hygiene practice and explores the questions practitioners should ask when selecting and using these technologies.

Topics addressed include:

- Potential applications of PM sensors in occupational hygiene;
- The importance of understanding measurement principles;
- Considerations related to sensitivity, repeatability, selectivity, and calibration;
- Challenges associated with environmental interferences and particle characteristics;
- The role of validation, maintenance, and performance verification;
- Ethical considerations, including worker privacy and acceptability; and
- The indispensable role of professional judgement in interpreting sensor data.

A key message emerging from the work of the COP is that PM sensors should be viewed as one of many tools available to occupational hygienists. Their value lies not simply in generating data, but in how those data are integrated into a broader exposure assessment and risk management framework.

Looking Ahead

The work of the Community of Practice continues to evolve in response to the needs of the global occupational hygiene community. Future activities may include additional guidance documents, educational resources, webinars, and opportunities for members to share experiences and emerging practices.

Through global collaboration and knowledge exchange, the COP aims to help occupational hygienists worldwide make informed decisions about sensor technologies and support their effective implementation in practice.

The forthcoming white paper and associated webinar represent important steps in this journey.

We invite IOHA member organizations and occupational hygiene professionals around the world to engage with this work and join the conversation as we collectively explore how sensor technologies can best support the protection of workers' health.

The IOHA Community of Practice on Sensor Technologies welcomes participation from IOHA member organizations. Further information on the white paper, webinar, and future activities will be made available through IOHA communication channels.

The Emerging Leaders Institute: An Award-Winning Program Finds Its Home at IOHA

Samantha Connell on behalf of the Founding Advisory Board Members, Emerging Leaders Institute, samantha.connell.cih@outlook.com

The Emerging Leaders Institute (ELI) is a global initiative dedicated to strengthening the leadership and "soft" skills of early-career occupational, environmental, health and safety (OEHS) professionals. It answers a long-standing and previously unmet need: while strong technical training pathways exist across our profession, far fewer programs are devoted to building the communication, self-awareness, confidence and professional networks that early-career practitioners need to become effective leaders and advocates for worker health. Rather than concentrating on technical content, ELI develops the awareness of self and others, teamwork, cross-cultural communication and influence that together help define a well-rounded hygienist. Inspired by the AIHA Future Leaders Institute (FLI), the program was designed, delivered and completed by the founding ELI Advisory Board: Alex Wilson, Samantha Connell, Megan Canright Racicot, Perry Logan and Andrea Hiddinga, drawing on the experience of several members who had previously participated in FLI.

The inaugural institute was held over the weekend before the IOHA 2024 conference in Dublin, Ireland, welcoming 35 delegates selected from more than 80 applicants across 40 countries. Readers who would like the full story of those three days — from the helium stick and Color Code profiles to the Molly Malone escape tour through Dublin and the closing luminary panels — can revisit our feature in the Q2 2024 issue of GEM: IOHA GEM Quarterly Magazine - April - June 2024. This article picks up where that account left off, because a great deal has happened since.

A program with lasting impact

ELI was never intended to be a single weekend. More than a year on, the first cohort remains actively connected, paired through accountability partnerships and collaborating across borders. Among the ways delegates have already "paid it forward":

- Building a shared SharePoint site and an active WhatsApp community to exchange materials, achievements and updates;
- Developing communication materials, including a comic book introducing occupational hygiene to new audiences;
- Presenting on their ELI experience at national safety conferences in Berlin and Sydney, and contributing to health-focused sessions at the World Expo in Osaka;
- Stepping up to board and committee roles within their respective national associations and IOHA.

These outcomes are exactly the kind of self-sustaining, cross-border momentum ELI set out to create — and they form the heart of the recognition that soon followed.

Recognised with the Peter Hewitt Award

In 2025, ELI was honoured with the British Occupational Hygiene Society's (BOHS) Dr Peter Hewitt Award for International Innovation in Occupational Hygiene. The award commemorates Dr Peter Hewitt, a leading member of BOHS and an innovator in worker health protection, together with his lasting commitment to the international sharing of good practice and learning. Each year it recognises an innovation, invention or initiative that contributes to the better understanding or practice of occupational hygiene in more than one country — and, importantly, one that can demonstrate genuine, evidenced impact rather than promotion alone.

Alex Wilson accepted the award on behalf of the ELI Advisory Group at the BOHS annual conference, where several ELI participants were also present to share in the moment; a fitting reflection of a program built by and for the next generation of leaders. There is a pleasing symmetry to the honour, too: Alex is himself a past student and award winner of the Peter Hewitt Legacy at the University of Bradford.

Mary Cameron, Alex Wilson, Kirsty Thomas, and Leah Philpott celebrating ELI receiving the Peter Hewitt Award

Alex affirms that Peter would have loved to have been part of the ELI 2024 event and thrilled that work like this is being encouraged internationally. For ELI, the distinction affirms what the organising team and, more importantly, the delegates themselves set out to demonstrate: that investing early in the leadership and soft skills of emerging professionals strengthens the global occupational hygiene community, deepens collaboration, and reduces the duplication of effort across national associations. ELI is now, proudly, an award-winning program.

A formal home within IOHA

Perhaps the most significant development since Dublin is structural. ELI is now an official program of IOHA, governed by a formal Terms of Reference agreed between the founding ELI Advisory Group and the IOHA Executive Committee. What began as the vision of a small organising team is now embedded within the global body for occupational hygiene, with the structure, oversight and continuity to endure well beyond any single cohort or conference. The transition marks a milestone in strengthening global occupational hygiene leadership and ensures the program's long-term sustainability.

Bringing ELI under IOHA delivers benefits on both sides. For ELI, institutional backing brings credibility, visibility and continuity, along with alignment to IOHA's mission to improve, promote and develop occupational hygiene worldwide through its member organisations, to improve and maintain a safe and healthy working environment for all. It also provides access to IOHA's global network of member organizations, positioning ELI as the

premier leadership development program for occupational hygiene professionals worldwide. A dedicated ELI Working Group now provides strategic direction and oversees program design, participant selection, evaluation and fundraising, reporting to the IOHA Board of Directors twice each year.

More importantly, the formalisation strengthens the profession itself.

By developing capable, connected and globally minded early-career professionals, ELI helps build the leadership capacity needed to address future occupational health challenges and advance occupational hygiene across regions, sectors and generations. Graduates bring fresh perspectives, new ideas and broader international networks, contributing to the continued evolution of the discipline while fostering greater collaboration, diversity and inclusion within the profession. In doing so, ELI helps ensure that occupational hygiene remains innovative, relevant and influential in protecting worker health worldwide. The formalisation of the program therefore secures not only ELI's future, but also its role as a lasting catalyst for leadership across the global occupational hygiene community.

Looking ahead: IOHA 2027 in Montreal

With a formal home, an award to its name and a thriving first cohort, ELI is ready for its next chapter. The next ELI intake and institute will be held in concurrence with the IOHA 2027 conference in Montreal, Canada: www.ioha2027.com.

The 2024 cohort has issued a unanimous call to reunite there, and a new group of emerging leaders will have the chance to take their turn - carrying the network, and the mission, forward. Moving forward, ELI will principally run alongside the triennial IOHA International Scientific Conference, with the flexibility for additional sessions to be hosted by regional networks and national member organizations between conference years. Details on how to apply, and how to support the program will follow on IOHA communication channels like the website and LinkedIn. You can also follow the Emerging Leaders Institute LinkedIn page.

Our thanks go to everyone who participated in, supported, and believed in ELI — from our delegates and facilitators to the member organizations and sponsors who made it possible. If you are passionate about leadership, professional development and global collaboration, we warmly invite you to help us carry this award-winning initiative to Montreal and beyond.

Collaboration with the Beryllium Health and Safety Committee (BHSC)

Nancy Wilk, IOHA Immediate Past President, ACGIH representative on IOHA Board, nancy.wilk@wsp.com

IOHA representatives attended, presented at, and participated in the Spring Meeting of the Beryllium Health and Safety Committee (BHSC) in Meyrin, Geneva, Switzerland from April 29 to 30, 2026. The hybrid meeting, hosted at the CERN (European Organization for Nuclear Research) location in Meyrin, was the first BHSC meeting in Europe since 2019 and had over 200 registrants representing 16 countries. Abbas Virji (IOHA Stakeholder Relations Committee member) presented virtually on "Exposure Characteristics Relevant for Beryllium Sensitization" co-authored with Aleksandr Stefaniak. Abbas also co-authored a presentation delivered virtually by Aleksandr titled "Safety and Health Aspects of FLiBe". In person, Nancy Wilk (IOHA 2026 Past President, ACGIH representative on IOHA Board) presented an "Occupational Hygiene Review of Women's Occupational Health Issues and Beryllium" co-authored by Courtney Gendon.

In addition to excellent, high-quality technical presentations along with exciting CERN updates over two days, two technical tours were provided. One tour took place at the high luminosity upgrade to the Large Hadron Collider (LHC) including an underground visit to select areas of the LHC, and the other tour was to the new CERN Beryllium Facility and its operations. As the BHSC seeks to promote activities and efforts to understand and prevent beryllium-related conditions and illnesses related to occupational exposures to beryllium, opportunities for IOHA and BHSC to collaborate are meaningful and aligned with the aims of both organizations. IOHA is seeking further opportunities to come alongside and work with the BHSC. The minutes for the BHSC Spring Meeting can be downloaded from ResearchGate here: (1) (PDF) Minutes of the Beryllium Health & Safety Committee (BHSC) 2026 Spring Meeting.

AIHA's Mining Working Group "Nancy Wilk-Andrew Cecala Award" Winners

Nancy Wilk, IOHA Immediate Past President, ACGIH representative on IOHA Board, nancy.wilk@wsp.com

Serious occupational disease risks are present for workers in artisanal and small-scale mining, a significant economic sector that directly employs 40 to 45 million people globally and has a supply chain of approximately 270 million workers. At AIHAConnect2026 in New Orleans, Louisiana, the AIHA Mining Working Group Award (i.e., the Nancy Wilk-Andrew Cecala

Award) was presented to Manti Michael Nota, MSC, AFOH; Perry Gottesfeld; Stephen E. Mbuligwe; Gabriel R. Kassenga; and Shehu Mohammed Anka for their paper, Airborne lead exposures during artisanal lead mining and gold ore processing in Zamfara, Nigeria, published in the Journal of Occupational and Environmental Hygiene on May 5, 2025: Airborne lead exposures during artisanal lead mining and gold ore processing in Zamfara, Nigeria: Journal of Occupational and Environmental Hygiene: Vol 22 , No 9 - Get Access.

This important and much needed work in supporting and caring for the artisanal mining sector in Nigeria is critical for the health of miners, and their families and communities. Congratulations and thank you! Information about the AIHA Volunteer Group Named awards can be found here: AIHA Volunteer Group Awards & Recognition | AIHA.

9th ANOH CONFERENCE ASIAN NETWORK OF OCCUPATIONAL HYGIENE

TheANOH 2026Conference bringstogether occupationalhealthprofessionals,researchers,industry leaders, and policymakers to share knowledge, exchange best practices, and discuss emerging challenges and innovations in occupational health.

Join us for high quality scientific sessions, expert discussions, and networking opportunities that promote healthier and safer workplaces across the region.

Conference Highlights

- Scientific keynote lectures and technical sessions
- Oral and poster presentations
- Occupational health best practices and case studies
- Networking with regional and international experts

Who can attend:

Welcoming occupational health professionals, researchers, industry leaders, and policymakers from across the region.

When:

15-16 September Professional Development Courses
17-18 September Main Conference Program
19 September Technical Tour

Shangri-La hotel, Ulaanbaatar, Mongolia

CONTACT:
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www.anoh2026.mn

ANOH 2026: Connecting Occupational Hygiene Professionals in the Heart of Mongolia

Aira Estrella, Accountant, Hibbs & Associates, aira.estrella@hibbs.com.au

A Premier Gathering for Occupational Hygiene Professionals
Hosted by the Mongolian National Association of Occupational Hygienists (MNAOH) and the Asian Network of Occupational Hygiene (ANOH), ANOH 2026 will bring together occupational hygienists, researchers, regulators, industry leaders, educators, and students from across the region.

The conference will provide a platform for delegates to exchange ideas, discuss emerging workplace health challenges, and explore practical solutions that can be applied across industries and jurisdictions.

As workplace environments continue to change, events such as ANOH 2026 play a critical role in advancing the profession and ensuring that workers are protected through evidence-based occupational hygiene practices.

Technical Excellence and Professional Development

ANOH conferences are widely recognised for delivering high-quality technical programs that address both current and emerging occupational hygiene challenges.

Delegates can expect a diverse range of presentations, discussions, and professional development opportunities covering key areas of occupational hygiene practice. The conference will provide attendees with access to leading experts, current research, and practical case studies that can help improve workplace health outcomes.

Beyond the formal program, ANOH 2026 will create opportunities for collaboration among professionals from different countries, industries, and backgrounds, helping to strengthen occupational hygiene capabilities across the Asia-Pacific region and beyond.

"ANOH 2026 is more than a conference—it is a platform where Asian occupational hygiene professionals come together to shape healthier, safer, and more resilient workplaces for the future." *- Wantanee Phanprasit, Researcher and Professor at the Faculty of Public Health, Mahidol University, Thailand & Former President of the Occupational Health and Safety at Work Association (OHSWA), Thailand*

Strengthening Regional and Global Collaboration

One of the defining strengths of ANOH conferences is their ability to bring together professionals from across the region to address shared occupational health challenges.

The exchange of knowledge and experience between countries helps accelerate innovation, supports professional development, and promotes the adoption of best practices throughout the occupational hygiene community.

ANOH 2026 will continue this tradition by creating opportunities for dialogue and collaboration among practitioners, researchers, regulators, and industry representatives. These connections often extend well beyond the conference itself, leading to lasting partnerships and ongoing professional engagement.

As occupational hygiene challenges become increasingly complex and interconnected, regional and international collaboration remains essential to advancing worker health and safety outcomes globally.

"Attending the ANOH is highly impactful because it strengthens professional collaboration across Asia, builds capacity in regions with limited occupational hygiene expertise, and provides access to affordable professional development courses, trainings, cutting-edge knowledge, and exposure to best practices that strengthen local expertise. It is especially important for countries like the Philippines, where industrial growth and climate challenges demand stronger workplace health protections." *- Carmela Capule, President, Industrial Hygienists Association of the Philippines Inc. (IHAP)*

Discovering Mongolia: A Unique Conference Destination

ANOH 2026 offers delegates the opportunity to experience one of the world's most distinctive and fascinating destinations.
Mongolia's rich cultural heritage, breathtaking landscapes, and growing industrial sectors provide a unique backdrop for professional learning and networking. The country's significant mining, construction, and infrastructure industries also present valuable opportunities to explore occupational hygiene challenges and solutions within a unique economic and environmental context.
For many delegates, the conference will be more than a professional event. It will be an opportunity to gain new perspectives, build international connections, and experience Mongolia's renowned hospitality.

“ANOH 2026 Mongolia is where we move occupational hygiene from measurement to meaning—using science, ethics, and collaboration to turn evidence into action for a safer, healthier, and more sustainable workplace.” - Reginald Alex, Professor of Internal Medicine, Christian Medical College, Vellore, Chittoor Campus, Andra Pradesh, India.

Join the Occupational Hygiene Community in Mongolia

ANOH 2026 represents an exciting opportunity for occupational hygiene professionals to learn, connect, and contribute to the future of worker health across Asia and beyond.
Whether you are an experienced practitioner, researcher, regulator, educator, or emerging professional, the conference offers a valuable platform to expand your knowledge, strengthen your network, and engage with the broader occupational hygiene community.

We invite you to join colleagues from around the world in Ulaanbaatar for ANOH 2026 and be part of the conversations shaping the future of occupational hygiene.

For conference information, registration details, sponsorship opportunities, and event updates, visit the official conference website and follow ANOH 2026 communications channels.

Conference website: ANOH 2026 | 9th Conference of Asian Network of Occupational Hygiene

Prepare to shape the future of

Industrial Hygiene

Save the date

MIHA·ICE '26
International Conference & Exhibition

MIHAICE '26

Date: 24 – 25 October 2026 (Pre-Conference)

26 – 27 October 2026 (MainEvent)

Venue: Concorde Hotel, Kuala Lumpur,Malaysia

- **Professional Development Courses (PDCs)**
- **Plenary Sessions**
- **Exhibition & Networking Events**
- **International Student Symposium**
- **Podium / Poster Presentation**

Organised by:

MIHA
Malaysian Industrial Hygiene Association

Supported by:

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+6019-3312173 conference.mihaice@gmail.com https://miha2u.org Malaysian Industrial Hygiene Association

ISRP CONFERENCE 2026
MONTREAL CANADA

Respiratory protection's global stage.

The ISRP Americas Section is hosting the biennial International Conference on Respiratory Protection. This global gathering of occupational health and safety professionals presents cutting-edge research, best practices, and innovations — presentations, posters, and an exhibition showcasing the latest in respirators, fit testing, and exposure assessment.

CONFERENCE
October 19 — 23, 2026
Centre Mont-Royal
Montréal, Canada

SCAN TO register

IOHA

AIHN 26

AIHN CONFERENCE 2026 · LAGOS · NIGERIA

ANNUAL CONFERENCE & EXHIBITION · LAGOS

Industrial Hygiene and Occupational Health: Building Partnerships for a Healthier Workplace

18 – 21 NOVEMBER 2026

Radisson Blu Hotel, Lagos Ikeja
38–40 Isaac John Street, Ikeja GRA, Lagos, Nigeria

Scan to Register

TRAIN	DEVELOP	CONNECT
13–17 Nov	**18 Nov**	**19–21 Nov**
OHTA 507 Training	Professional Development Courses	Conference & Exhibition

Call for Abstracts open now & closes 31 August 2026

conference@aihn.org
#AIHN26

PROGRAMME

PDCs and Technical Tours | Monday October 4

Conference Program Sessions | October 5 – 8

Ticketed Gala Event at Marche Bonsecours | Evening of Wednesday October 6

DATES TO REMEMBER

Portal for Sponsorships and Exhibitors | Opened

Portal for PDC abstract submissions | Opened

Portal for Conference Program Session abstract submissions | September 1, 2026

Registration | Opens November 1, 2026

COMMITTEES FORMED (AND CO-CHAIRS OF EACH):

Conference Organizing Committee (COC) - - Suzanne Wilde and René Leblanc

Scientific Conference Content Committee (SCCC) - - Jérôme Lavoué and Victoria Arrandale

Local and Social Planning Committee (L&SPC) - - Kiet Nguyen and Guillaume Lachapelle

Translation Committee (TC) – - Stéphane Archambault

Exhibitor & Sponsorship Committee (E&SC) - - Dr. Chun-Yip Hon and Sarah McCurdy

Volunteer Committee (VC) – - Alex Mercer and Leah McCormick

CLOSING NOTE & CALL FOR CONTRIBUTIONS

Behind every edition of GEM are professionals who generously share their experiences, insights and lessons learned. I would like to thank all of our contributors, reviewers, national associations and editorial volunteers for helping capture the breadth and diversity of occupational hygiene practice represented in these pages.

The themes for our next issue highlight areas where occupational hygiene continues to expand its influence and contribute to healthier, more inclusive workplaces:

- Respiratory Protection Fit and Fit Testing
- Psychosocial Health and Risk Management

We are still looking for submissions related to:

- Product Stewardship and Toxicology
- Chronic Illness Management and Workplace Accommodations

We are particularly interested in articles that share practical experience, emerging research, innovative solutions, lessons learned, and examples of successful collaboration.

We welcome contributions from across the occupational hygiene community and beyond, including practitioners, researchers, educators, regulators, students, national associations, and allied professionals.

You can submit:

- Technical articles
- Short thought pieces
- Case studies
- National society updates
- Student or early-career perspectives
- Tools, checklists, or practical guidance
- Partnership stories
- Global project updates
- Photos, quotes, or short reflections

If you're not sure whether your idea fits, get in touch. GEM is here to reflect the full breadth of work happening in and around occupational hygiene – and that includes emerging thinking, work in progress, and ideas still finding their shape.

Occupational hygiene advances because professionals are willing to learn from one another and share their experiences.

Thank you for being part of that journey, and we hope to hear from you in a future issue.