

Report on the International Commission on Occupational Health Symposium: Biohazards at the workplace – magnitude of the problem and potential solutions

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The first mid-term symposium of the Scientific Committee on Biohazards and Occupational Health (SCBOH) was held in Hamburg, Germany, on 6 and 7 October 2025. The event attracted 58 experts, policymakers, and practitioners in occupational health, infectious disease control, and biosafety, from 11 countries across four continents, to exchange views on research, policy, and practice related to biological hazards in the workplace. The symposium marked a significant milestone for SCBOH, formed in 2022 by the International Commission on Occupational Health (ICOH).

The symposium was hosted by the BGW (Institution for Statutory Accident Insurance and Prevention in the Health and Welfare Services) and supported by the International Social Security Association (ISSA), Competence Centre for Epidemiology and Health Services Research for Healthcare Professionals (CVcare), the University Medical Center Hamburg-Eppendorf (UKE), and the International Labour Organization (ILO).

Global collaboration and expertise

The opening session set a strong collaborative tone with welcome remarks from Prof. Albert Nienhaus (SCBOH chairperson), Miriam Stuckert (ISSA), and Prof. Volker Harth (the German Society for Occupational and Environmental Medicine (DGAUM)), followed by Prof. Mary Ross who traced the evolution of SCBOH from its early roots as the Working Group on Occupational Infectious Agents (WGOIA) to a globally recognised scientific committee. Her address celebrated successes during the 19 years of growth from WGOIA to SCBOH, including contribution to the 2021 ILO technical guidance on biological hazards, and the landmark adoption of the 2025 ILO Convention on Biohazards.

Scientific programme

Within the 14 oral presentations and 16 posters, participants covered a diverse range of topics, from infectious disease risks to non-infectious biohazards, such as advances in vaccine prevention and allergies.



Members of the SCBOH in attendance. Left to right: Prof. Stefano Porru, Dr Augustina Puspitasari, Prof. Mary Ross (first SCBOH Chair), Prof. Tanusha Singh (SCBOH Secretary), Prof. Albert Nienhaus (current SCBOH Chair), Mr Fransisco Santos-O'Connor (ILO, Geneva, non-member), Dr Gianluca Spiteri, Dr Marcella Mauro, Dr Guglielmo Dini *Photograph: courtesy of Bianca Hobusch*



Presenter: Prof. Mohamed Jeebhay (South Africa)

Photograph: courtesy of Bianca Hobusch

South Africa was very well represented in the scientific programme, by four speakers and a poster presentation.

Keynote presentations featured:

- Gerd Schneider (Institute for Occupational Safety, Germany): 'Review of the most important workplace biohazards'
- Francisco Santos-O'Connor (ILO, Geneva): 'New international labour standards on biological hazards'
- Dipti Patel (UK): 'Advances in vaccination and travel medicine for global workforces'
- Michael Hodgson (National Institute for Occupational Safety and Health (NIOSH), USA): 'Reflections of the Centers for Disease Control and Prevention (CDC) and NIOSH under the Trump administration'
- Mohamed Jeebhay (University of Cape Town, South Africa): 'Insights into non-infectious biohazards in the workplace'

Additional sessions highlighted tuberculosis prevention and control in work settings, global surveillance of occupational diseases in travellers, changing climates and reshaping risks for outdoor workers, occupational infections among European healthcare workers, biohazards in veterinary practice, and biohazardous risks among sex workers.

The final presentation covered the SCBOH survey on biohazards as an occupational risk, conducted by Prof. Singh and Prof. Ross through the National Secretaries of the 74 ICOH country members. Preliminary analysis of the 32 questionnaires returned was presented by Prof. Singh.

The symposium's poster exhibition showcased innovative work from multiple countries. Poster awards were presented to:

- Spiteri G, Monaco MGL, Porru S (Italy): 'Vaccine-preventable diseases in healthcare workers and fitness for work: challenges for occupational physicians'

- Rifki AIM, Fachrulrahy D, Hidayat R, Gama R (Indonesia): 'Integrating vector control and occupational health economics: a spatio-temporal model of mosquito-borne disease prevention in Pertamina of mosquito stings in outdoor workers'
- Peitler H, Barnekow T, Nienhaus A (Germany): 'Hantavirus infections as an occupational disease among insured individuals in healthcare and welfare services'

These contributions exemplified the SCBOH's One Health vision and the growing integration of data-driven approaches in occupational biohazard research.

The symposium concluded with a post-conference workshop at the Museum for Medical History at the University Clinics Hamburg, offering a reflective journey through *The History of Pandemics*, emphasising occupational epidemics, including the recent COVID-19 pandemic.

Future focus for the SCBOH

Following the various challenges and requests expressed by the SCBOH survey participants, a pivotal roundtable discussion on 'The future of SCBOH: plans and priorities' charted the committee's strategic roadmap. Delegates emphasised strengthening surveillance systems, promoting ILO Convention ratification, and enhancing collaboration across global regions. A Call to Action was issued, urging countries to adopt the new ILO Biohazards Convention C192 and Recommendation to ensure protection for all workers. C192 and R209 are the first international legal instruments for biohazards, to which members from the WGOIAs contributed.

The symposium confirmed the enthusiasm of the SCBOH members, the strength of their collective expertise, and the shared purpose to transform the way the world understands, prevents, and manages biohazards at work. [👉](#)



Presenters and question sessions (left to right): Prof. Paolo Durando (Italy), Dr Albert de Frey (South Africa), Prof. Albeit Nienhaus (Germany)

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