



HEALTH in BUILDINGS HYGEIA 2026

where the medical & engineering professions collaborate & innovate



May 27-29, 2026 - Island of KOS, Greece

#	Dr. John McKeon MD	
Title:	CEO, iAIR Health Group	
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Presentation title:	From Air to Outcomes: Integrating Biomarkers, Al, and the Exposome into Indoor Environmental Performance	

The next frontier for indoor environmental quality (IEQ) extends beyond comfort and compliance to measurable health outcomes. Five years after the Pandemic, the convergence of sensor intelligence, data analytics, and biomedical science offers new opportunities to redefine how buildings support human wellbeing.

This presentation will explore how advances in biomarkers, wearable technologies, and artificial intelligence can translate environmental data into actionable health metrics. By examining the exposome - the totality of environmental exposures individuals experience indoors; Dr. John McKeon will outline a framework for correlating IEQ parameters with physiological and clinical indicators of health.

Building upon ongoing collaborations and shared initiatives with ASHRAE, the American Institute of Architects, and the World Filtration Institute, this session demonstrates how real-time monitoring of indoor conditions and occupant responses can inform adaptive control systems that promote both health and sustainability.

Case examples will illustrate how metrics such as heart-rate variability, inflammatory biomarkers, and cognitive performance can be integrated with ventilation, filtration, and energy models to enable outcome-based performance standards.

Ultimately, the presentation envisions a future where building design and operation are guided by dynamic, data-informed systems - environments capable of anticipating and responding to occupant needs.

By adopting principles similar to modern medicine's focus on personalization, prevention, and prediction, the built environment can move from static standards to living frameworks that measure and optimize human health alongside operational efficiency.

Short CV:

Dr. John McKeon is CEO of the iAIR Health Group and Vice President of ASHRAE Ireland.

A trained emergency physician and Fellow of the Royal College of Surgeons in Ireland, he is internationally recognized for advancing the science of indoor environmental quality (IEQ), bridging clinical medicine, building performance, and public health to create healthier, more sustainable indoor environments.

Event:



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CV:

Dr. John McKeon is a physician, entrepreneur, and global advocate for healthier indoor environments. As Chief Executive Officer (CEO) and founder of the iAIR Health Group, he leads a multidisciplinary organization advancing innovation at the intersection of health, science, and the built environment. Through the group's certification programs and research initiatives, Dr. McKeon collaborates with manufacturers, architects, and engineers worldwide to translate clinical and environmental evidence into practical standards for products and spaces that support human wellbeing.

Trained as an emergency physician and a Fellow of the Royal College of Surgeons in Ireland (RCSI), Dr. McKeon brings a unique clinical perspective to the study of building performance and indoor air quality. His career bridges medicine and building science, focusing on how indoor environmental quality (IEQ) influences respiratory health, cognitive function, and overall human performance.

Within ASHRAE, Dr. McKeon serves as Vice President of ASHRAE Ireland and as a voting member of the Environmental Health Committee (EHC), contributing to the Society's evolving approach to health-centred standards and outcome-based performance metrics. He is also an Ambassador for the World Filtration Institute (WFI), an accredited educator with the American Institute of Architects (AIA), and a member of the International WELL Building Institute (IWBI) Healthy Workplaces Coalition, helping advance best practices that integrate design, health, and sustainability.

Dr. McKeon also serves as a Commissioner on the Global Commission on Healthy Indoor Air, an international initiative launched at the United Nations to accelerate global action on indoor air quality and its impact on human health.

In academia, he is Entrepreneur in Residence at the Centre for Practice and Healthcare Innovation (CPHI) at Trinity College Dublin (TCD), supporting translational research and fostering collaboration between clinicians, scientists, and the building industry. His work promotes a shared framework for measuring how indoor environments influence biological, psychological, and behavioral health outcomes.

A frequent speaker at ASHRAE's Annual and Winter Conferences, Dr. McKeon is a published author in the ASHRAE Journal and other peer-reviewed publications. His recent projects explore how advances in biomarkers, wearable sensors, and artificial intelligence (AI) can connect environmental data with measurable indicators of human health.

Bringing together expertise in medicine, innovation, and sustainability, Dr. McKeon continues to champion an evidence-based, interdisciplinary approach to indoor environmental performance; transforming how buildings are designed, operated, and evaluated for the benefit of both people and planet.