

Susanne Hempel, PhD, shifted the conference focus toward a highly encouraging and forward-looking evaluation of global intervention research for Multiple Chemical Sensitivity (MCS). Dr. Hempel's team conducted a comprehensive scoping review. By searching twenty peer-reviewed research databases, her interdisciplinary team filtered through more than 15,000 initial citations to carefully evaluate over 400 scientific studies. This extensive mapping effort reveals an incredibly rich foundation of preliminary data, pointing to an array of treatment possibilities that are prime for rigorous scientific expansion.

A major finding of this scoping review is the urgent, positive opportunity to expand structural research funding for environmental illnesses. In analyzing global funding allocations over a ten-year period, Dr. Hempel discovered that major public institutions like the U.S. National Institutes of Health (NIH) and the Canadian Institutes of Health Research (CIHR) have historically dedicated very little capital to formal MCS research compared to other chronic conditions. Instead, the field has been sustained by private foundations. This funding landscape represents a starting-point with immense potential for public health agencies as increased public funding could rapidly accelerate scientific breakthroughs.

Turning to clinical data, Dr. Hempel's review uncovered nearly one hundred empirical evaluations of interventions published in scientific journals, establishing that active clinical exploration is already well underway. While the largest data sets currently consist of patient surveys and clinical case write-ups, their stories provide an ideal roadmap for future research. It offers a wealth of real-world clinical insights that can easily be transitioned into larger, standardized clinical trials.

The scoping review organized these diverse interventions into three optimistic categories of care: prevention, management, and treatment. Prevention studies focused heavily on successful environment-dependent strategies, such as trigger avoidance, removing localized indoor irritants, or relocating to rural areas to drastically limit chemical exposure. Management data offered highly practical, creative protocols developed by innovative clinicians to help sensitive individuals safely navigate complex medical procedures, including dental visits, major surgical operations requiring sedation, and cancer treatments. Finally, active treatment strategies spanned a vast and promising spectrum of therapies, including advanced detoxification programs, immunotherapy, neuro-stimulation, and various supportive physical therapies.

Dr. Hempel concluded her presentation with an optimistic call to action for the international scientific community. While traditional guideline groups typically require large-scale, randomized controlled trials, the current abundance of small, successful case studies means the foundational groundwork has been conducted. The field of MCS is perfectly positioned for a major evolutionary leap. With targeted public investment, standardized clinical terminology, and a coordinated transition into large-scale controlled trials, the medical community has a clear, highly achievable path forward to validate these diverse treatments and establish robust, evidence-based care guidelines for patients globally.

References

Hempel, S., Zhang, D., Robinson, K. A., Yagyu, S., Miles, J., Motala, A., Tolentino, D., Akbari, O., Danz, M., & Johnston, J. (2025). Multiple chemical sensitivity (MCS) validity, prevalence, tools and interventions: systematic review protocol. *BMJ open*, 15(5), e088136. <https://doi.org/10.1136/bmjopen-2024-088136>