Mini-Symposium on Advanced Materials

Advancing the Safety of Advanced Materials

Mini-Symposium organized at the Nobel Forum – November 6, 2026

Hosted by Institute of Environmental Medicine, Karolinska Institutet

08.30-09.00 Registration [please note that pre-registration is required]

09.00-09.15 Opening remarks (*Bengt Fadeel* & *Anna Bergström*, Head, Institute of Environmental Medicine, Karolinska Institutet)

09.15-10.00 Keynote Lecture (*Roland Grafström*, Karolinska Institutet)

Fifty Years at KI – a Perspective on Systems Toxicology

Session I: Advancing Healthcare with Advanced Materials

Chairperson: Bengt Fadeel, Karolinska Institutet, Sweden

10.15-10.45 Invited Lecture (*Radek Zboril*, VSB–Technical University of Ostrava, Ostrava, Czech Republic; Palacký University Olomouc, Olomouc, Czech Republic)

Low-Dimensional Materials for Advanced Antimicrobial Technologies

10.45-11.15 Invited Lecture (*Avi Schroeder*, Technion – Israel Institute of Technology, Israel)

Brain-Targeted Nanoparticles: Leveraging AI in Nanomedicine

11.15-11.30 Short Presentation (*Tomas Malina*, VSB–Technical University of Ostrava, Ostrava, Czech Republic; Palacký University Olomouc, Olomouc, Czech Republic)

Engineering Atomically Precise Materials to Exploit Cancer Cell Vulnerabilities

11.30-13.30 LIGHT LUNCH AT THE NOBEL FORUM

Session II: Advancing the Safety of Advanced Materials

Chairperson: Peter Wick, EMPA and ETH Zurich, Switzerland

13.30-14.00 Invited Lecture (*Lang Tran*, Institute of Occupational Medicine, UK)

Back to the Future: Lessons Learned from Nanosafety Research

14.00-14.30 Invited Lecture (*Andi Alijagic*, Örebro University, Sweden)

High-Content Phenotypic Profiling to Support Safety Assessment

14.30-14.45 Short Presentation (*Jasreen Kaur*, Karolinska Institutet, Sweden)

Assessing the Ecotoxicological Effects of MXenes: Insights from Zebrafish

14.45-15.15 COFFEE BREAK & GROUP PHOTO

Session III: Advancing the Safety of Advanced Materials

Chairperson: Lang Tran, Institute of Occupational Medicine, UK

15.15-15.45 Invited Lecture (*Georgios Sotiriou*, Stockholm University, Sweden)

Designing Biomedical Nanomaterials: Balancing Function and Safety

15.45-16.15 Invited Lecture (*Peter Wick*, EMPA and ETH Zurich, Switzerland)

Silicon Carbide Nanowires Compromise Respiratory Barrier Function

16.15-16.30 Short Presentation (*Swaroop Chakraborty*, University of Birmingham, UK)

Mapping the Transformation of Metal-Organic Frameworks in the Environment

16.30-16.45 Closing remarks (Bengt Fadeel, Karolinska Institutet)

20.15-22.30 Dinner at Rest. Portal, St. Eriksplan [please note: only for invited speakers]