Welcome to the inaugural issue of our journal. NanoImpact is the first community journal that focuses solely on all aspects of nanosafety research across the exposure-disease/environmental risk continuum. It is a journal with an interdisciplinary and broad scope that covers the impact of engineered nanomaterials on human and environmental systems and the behavior of nanomaterials in these systems. (See Fig. 1.)

The use of engineered nanomaterials in consumer products, industrial processes, medicines and a large number of other applications is widespread and increasing rapidly. Environmental and human exposures are essentially inevitable as a consequence of this increased use of nanomaterials and nano-enabled products. Preliminary evidence also demonstrates the potential for nanomaterials (NMs) to cause both adverse biological effects and have environmental, health and safety (EHS) implications. We believe that nano-EHS issues need to be addressed in a multidisciplinary approach integrating the fields of material science, chemistry, exposure assessment, human and eco-toxicology and risk and life-cycle assessment.

Over 10,000 papers have been published over the last decade in the area of nanosafety. However, these papers are currently published across a wide range of journals covering specific fields (e.g. nanotoxicology, chemistry, environmental science, exposure science, ecotoxicology, life-cycle assessment) making it difficult for scientists working across various nano-EHS disciplines to publish and follow this multidisciplinary research field. There is a societal demand and need for a new “sole source” journal to present the latest and most rigorous scientific findings on the fundamental nano-bio-environment interactions and potential risks across the life cycle of nanomaterials and nano-enabled products.

Fig. 1. The interdisciplinary topics for NanoImpact across the exposure-disease/environmental risk continuum.
3. NanoImpact: A truly interdisciplinary journal of nanosafety research

NanoImpact is dedicated to advancing multidisciplinary nanosafety research and, with the enthusiastic support of its internationally recognized editorial board, is committed to publish the highest quality of research findings in the following areas:

- **Human Nanotoxicology**: Fundamental nano-bio interactions at cellular and organismal level; mechanisms of disease development; in-vitro and in-vivo toxicity screening strategies
- **Nano-ecotoxicology**: Nano-bio interactions and effects on organism and ecosystem health;
- **Exposure**: Release of nanomaterials across the life cycle of nano-enabled products and applications; occupational, consumer and environmental exposures; the fate and behavior of nanomaterials in a variety of settings (occupational, consumer, engineered systems and the environment); development and application of analytical methods to quantify and characterize the nanomaterials in environmental and biological media.
- **Risk and Life Cycle Assessment**: Human and environmental risk assessment; development of life cycle assessment (LCA) methods of nano-enabled products or applications.

Finally, we envision NanoImpact to be the nanosafety community journal and we kindly ask you to support the journal through your high quality submissions and contributions in this dynamic field of research. In return, we promise to publish the highest quality, most novel and most rigorous science and technology in this field. Without a doubt, the rapid expansion of nanotechnology is a powerful scientific and economic force. However, we need to match this progress with careful evaluation of the possible EHS impacts of nanomaterials and nanotechnology across their life cycle, both to protect health and also to protect the sustainability and benefits of nanotechnology. We also envision that NanoImpact will stimulate collaborations between researchers working on applications and the nanosafety research community. Only by working together and assessing possible implications at the time of discovery of new materials and applications, we can move nanotechnology towards a more sustainable future.

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Dr. Jamie Lead
Professor Jamie Lead is endowed professor and Director of the SmartState Center for Environmental Nanoscience and Risk at the University of South Carolina. His research aims at understanding nanoscale phenomena in the environment and he is interested in investigating natural nanomaterials, manufactured nanomaterials and their interactions, behaviors and risks. These issues are currently poorly understood and this lack of understanding may reduce the sustainability and safety of a huge and highly beneficial industry. Dr Lead’s research is also engaged with ‘environmentally-friendly’ applications of nanomaterials. Prof. Lead is Honorary Professor and former and founding Director of the Facility for Environmental Nanoscience Analysis and Characterization, University of Birmingham, UK. He has published widely in the field, with more than 160 publications, has edited 5 books on natural and manufactured nanomaterials and is a founding member, and a current member of the organizing committee, for the International Conference series on the Environmental Effects of Nanoparticles and Nanomaterials.

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Prof. Dr. Bernd Nowack
holds a MSc. (1992) and a PhD (1995) in environmental sciences from ETH Zürich. He is leading the “Environmental Risk Assessment and Management” group at Empa, the Swiss Federal Laboratories for Materials Science and Technology, and is adjunct professor at ETH Zurich. His current research deals with the chances and risks of engineered nanomaterials, comprising a wide spectrum of different approaches: development and application of methods for material flow modeling, exposure modeling, environmental risk assessment and life cycle assessment; experimental studies about release of nanomaterials from products and investigations about their behavior and effects in the environment. With the combinations of these investigations he aims to gain a comprehensive understanding of the chances and risks of nanomaterials for the environment. Bernd Nowack has published more than 140 peer-reviewed publications and has an h-factor of 47. He is listed in “The World’s most influential scientific minds 2015” from Thomson Reuters in the category “Environmental Sciences/Ecology”. He acted as co-advisor of 15 PhD projects, is founding co-Editor-in-Chief of the journal NanoImpact and is Associate Editor of the journal Environmental Pollution.