

Institute for Work and Health (IST), a research foundation affiliated with University of Lausanne, is participating in an EU collaboration study LIFE17 ENV/GR/000285 - C1a to identify priority biomarkers for monitoring individuals exposed to nanomaterials

We are looking for a rigorous, meticulous, and organized scientific collaborator with a background in toxicology. A master in a related field (biology, chemistry, engineering, medicine, pharmaceutical) that correspond to the tasks listed below are also welcome to apply. The candidate must be able to read large amounts of published articles in English and synthesize the information in an organized and scientific manner. The candidate should start as soon as possible and stay for 3 to 5 months.

The job includes the following tasks:

- Search the scientific literature for possible candidate biomarker to survey populations exposed to Engineered NanoMaterials (ENMs), specifically TiO₂, CeO, SiO₂, ZnO, silver and carbon nanotubes (CNTs).
- Critically evaluate the compiled profile of each candidate biomarker
- Appraise the relevance and quality for each candidate biomarker for different exposure conditions, distinct ENM class, and potential health outcomes.
- Assess whether the use of biomarkers of early adverse effects can serve as outcome measures
- Identify possible outcomes that can be implemented in an Adverse Outcome Pathway (AOP) for specific target organs.
- Recommend sufficiently robust biomarkers for consideration for integration into field studies and/or health registries for nanomaterial workers.

Robustness of the biomarker will be judged based on its specificity and sensitivity for the exposure/effect of interest (e.g. reflecting exposure to nano-objects only vs. combined exposure, organ and disease specificity); inter-study reproducibility; inter-individual variability and its sources.

Interested candidates can contact:

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