

Prioritisation of knowledge gaps and moving forward

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Understanding which **changes in the microbiome relate to adverse outcomes** and the extent to which these are **generalizable to different sub-populations**



Standardised methods for measuring microbiomes and **fit-for purpose translational relevant models**, which could include integrative multi-omics approaches. Explore **sensitive indicators and biomarkers**.



Xenobiotic chemical conversions in the microbiome should continue to be researched and how in turn they might cause adverse effects.



Guidance to evaluate microbiome-related data in chemical risk assessment evaluations.



Improve gap between **innovation and regulatory procedures** as well as define regulatory standards.



Use **trend analysis** using new methodologies to help distinguish between causality, correlation and association.



Explore **fungal and viral microbiota** in both environmental and human health fields not just bacteria microbiota data.



Public engagement on use of live microorganisms e.g. probiotics promoted with claims that they provide health benefits when consumed, generally by improving or restoring the gut microbiota. This can include **vigilance** on bacteria-host interactions and recording unwanted side effects as well as communication on the knowledge of these.