

Adverse outcome pathways coming to life

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Propositions

- 1. Community-driven creation of pathways enhances collective expertise and inclusivity, leading to a more comprehensive and dynamic representation of biological knowledge. (Chapter 2)
- 2. The adoption of the standardisation of format and descriptions used in the AOP-Wiki RDF supports evidence-based decisions that prioritize human and environmental safety more efficiently and transparently. (Chapters 4-5)
- The use of ontologies and persistent identifiers ensures consistency and facilitates seamless navigation across diverse datasets and analytical tools. (Chapters 3-6)
- 4. The integration of Adverse Outcome Pathways (AOPs) with omics data is promising for advancing our mechanistic understanding of chemical stressor-induced adverse outcomes (Chapter 7)
- 5. The use of the Resource Description Framework (RDF) in data integration enables a more efficient exchange of information and enhances the overall quality and reliability of integrated datasets.
- 6. Through the integration of computational and biological sciences, bioinformatics has significantly contributed to advancing our understanding of complex biological processes and elucidating the molecular mechanisms underlying health, toxicity and diseases.
- 7. The true test of the importance of FAIR (Findable, Accessible, Interoperable, and Reusable) principles lies in their ability to catalyze data reuse.
- 8. The enhanced FAIRness of AOPs and their integration with omics data provide regulatory agencies with more robust and transparent tools for decision-making, offering a comprehensive and well-structured framework that aligns with evolving scientific understanding and regulatory needs.
- 9. Building a robust scientific network and fostering collaborations is paramount for making an impact.
- 10. Embracing Open Science will allow us to keep up with the challenges that are resulting from the ever-growing number of chemicals and other stressors that require risk and hazard assessments.