Adverse outcome pathways coming to life

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)

3. 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.