BIG LEAPS IN RISK ASSESSMENT APPROACHES

Across Species and Biological Scale

Presenter: Carlie A. LaLone, Ph.D.

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New Approach Methods (e.g., **Pathway Knowledge** and **Integrated Bioinformatics**) ARE the Future in Risk Assessment!

Historic understanding of toxicity

- Whole organism studies
- Observable toxic outcome
- One stressor at a time

} Antiquated

Toolbox: Adverse outcome pathway framework; high throughput toxicology; predictive toxicology

Historic Cross Species Extrapolation

- Safety Factors
- Qualitative understanding of species relatedness
- Assume model organism are good surrogates

} Antiquated

Toolbox: Bioinformatics (e.g. SeqAPASS); TK/TD modeling

Pillars for Taking on a New Approach

TIME/CHAMPIONS

CONFIDENCE

TRAINING

SUPPORT