



Advanced Approaches for Species Surrogacy in Chemical Risk Assessment

1–2 November 2026 • Montreal, Quebec

Toward a Weight of Evidence Approach for Cross Species Extrapolation

Sunday, 1 November

Daily Theme: New approaches for evaluating toxicokinetic and toxicodynamic evidence for species surrogacy approaches will be highlighted.

Introduction		
Time (ET)	Topic	Presenters
8:00 a.m.	Arrival and Morning Beverages	
8:30 a.m.	Welcome and Introductory Presentation	K. Coady, C. Rivetti
Session 1: Toxicokinetics Across Species Chairs: Michelle Embry, HESI Global; Jon Arnot, RC Arnot Research & Consulting		
Time (ET)	Topic	Presenters
9:30 a.m.	Framing Toxicokinetics Across Species: Data Streams, Applications and Gaps	M. Embry, J. Arnot
10:00 a.m.	Modelling Toxicokinetics Across Species: In Vitro Data and PBK Approaches for Fish and Birds	M. Brinkmann
10:20 a.m.	Refreshment Break	
10:50 a.m.	Characterizing Toxicokinetic Variation Across Fish Taxa	K. Johanning
11:10 a.m.	Predicting Toxicokinetics Across Species: In Silico Approaches for Fish and Mammals	A. Sangion
11:30 a.m.	Panel Discussion	
12:30 p.m.	Lunch (onsite)	
Session 2: Toxicodynamics and Pathway Conservation Chairs: Jessica Head, McGill University; John Colbourne, University of Birmingham		
Time (ET)	Topic	Presenters
1:30 p.m.	Introduction: Similarities to Exploit and Exceptions That May Matter	J. Head
2:00 p.m.	Toxicity by Descent: A Comparative Approach for Chemical Hazard Assessment	J. Colbourne
2:20 p.m.	Mechanistic Exploration of Networks for Team-based Omics Research (MENTOR) for Uncovering Pathway Conservation	D. Jacobson, A. Vlot
2:40 p.m.	Behavioral Effects of Chemicals on Distantly Related Species at Sublethal Doses	L. Gandara
3:00 p.m.	Quantitative Adverse Outcome Pathways: Species Extrapolation and Applications to Ecological Risk Assessment	Jon. Doering
3:20 p.m.	Refreshment Break	
4:00 p.m.	TBD	
4:20 p.m.	Species Surrogacy: Does Theodosius Dobzhansky's Well-Known Statement (1973) - "Nothing in Biology Makes Sense Except in the Light of Evolution" - Also Apply to Predictive and Regulatory Toxicology?	
5:20 p.m.	Poster Session and Refreshments	
6:30 p.m.	Adjourn	

Thank You to the Program Committee

Meeting Chairs

- Katherine Coady, Bayer Crop Science
- Claudia Rivetti, Unilever

Committee Members

- Jon Arnot, Arnot Research and Consulting
- Paul J. van den Brink, Wageningen University
- John Colbourne, University of Birmingham
- Rebecca Dalton, Environment and Climate Change Canada
- Michelle Embry, Health and Environmental Sciences Institute
- Jessica Head, McGill University
- Mark Johnson, US Army Public Health Center (Retired)
- Luigi Margiotta-Casaluci, King's College London

Advanced Approaches for Species Surrogacy in Chemical Risk Assessment

1-2 November 2026 • Montreal, Quebec

Toward a Weight of Evidence Approach for Cross Species Extrapolation



Monday, 2 November

Daily Theme: Species traits and existing data sources that may challenge or strengthen surrogacy decisions will be discussed in a weight of evidence context.

Introduction		
Time (ET)	Topic	Presenters
8:00 a.m.	Arrival and Morning Beverages	
8:30 a.m.	Welcome and Summary of Day 1	K. Coady, C. Rivetti
Session 3: Ecological and Organismal Traits Chairs: Mark S. Johnson, Wageningen University; Paul J. Van den Brink, Wageningen University		
Time (ET)	Topic	Presenters
8:40 a.m.	Introduction Covering Individual, Population and Community-Level Traits Relevant to Species Surrogacy	M. Johnson, P. van den Brink
8:50 a.m.	Consideration of Applying Toxicity Data to Humans and Terrestrial Vertebrates	M. Johnson
9:10 a.m.	Methods to Extrapolate Laboratory Toxicity Data Within a Population-Level Context	P. van den Brink
9:40 a.m.	Using Traits-Based Approaches to Inform Surrogate Species Selection for Ecological Risk Assessment	V. Forbes
10:00 a.m.	Refreshment Break	
10:40 a.m.	Integrating Empirical Mesocosm Data with Predictive Models to Assess Pesticide Impacts on Freshwater Biodiversity and Stability Endpoints	A. Rico, P. van den Brink
11:00 a.m.	Ecotox Screening Based on Environmental DNA and Non-Target Analysis	A. Deines
11:20 a.m.	Panel Discussion on the Application of Data and Models for Decision-Making; Next Steps	
12:20 p.m.	Lunch (onsite)	
Session 4: Integration of Existing Data Chairs: Rebecca Dalton, Environment and Climate Change Canada; Luigi Margiotta-Casaluci, King's College London		
Time (ET)	Topic	Presenters
1:20 p.m.	Introduction: From Fragmented Data to Coherent Evidence in Species Extrapolation	L. Margiotta-Casaluci
1:40 p.m.	Maximizing Data Use and Minimizing Fish Testing in Pharmaceutical (and Other Chemicals) Risk Assessment	C. Tyler
2:00 p.m.	A Systematic Evaluation of Toxicity Across Distantly Related Species	J. Shaw
2:20 p.m.	Case Studies from Individual to Population Effects	V. Roeben
2:40 p.m.	Weight-of-Evidence in Chemical Risk Assessment	R. Dalton
3:00 p.m.	Refreshment Break	
3:30 p.m.	Panel Discussion	
Closing and Next Steps		
Time (ET)	Topic	Presenters
4:30 p.m.	Perspectives on Incorporating Lines of Evidence in Regulatory Processes	P. Browne
4:50 p.m.	Summary and Closing	K. Coady, C. Rivetti
5:20 p.m.	Adjourn	

Thank You to the Meeting Supporters

