

Day 2 Breakout Session: Topic 2 – Exposure Assessment

Chairperson: Julia Gohlke, PhD
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Priority Matrix

Degree of Impact	High		
	Low		
		Short	Long
		Time scale	

Short timeframe < 3 years, Long timeframe > 3 years

Low impact will only incrementally advance a limited area of mixtures research, high impact will advance the field significantly

Overall Goals

- Develop methods to generate and analyze high density exposure data.
 - Technology
 - Data
 - Analytical methods
- Develop methods for relating measures of short half-life compounds to exposure.
- Develop better models to bridge fate and transport to distribution of individual-level exposure.
- Exposure database development (building on ExpoCast™)

High Impact/Short Timeframe

- Analyze existing high density exposure data sets with currently available technology.
- Validation of current exposure assessment technologies including questionnaires.
 - Repository of questions (ex. Phenxtoolkit.org)
- National, random environmental sampling for better environmental exposure characterization (e.g. EPA wipe sample)

High Impact/Short Timeframe

- Evaluate usefulness of commercially available product use/marketing databases.
- Behavior/Exposure characterization using new technologies (cell phone/internet use).
- Evaluate kinetics via high-throughput in vitro approaches.
- Identify partners to lower biomonitoring technology costs (DOD, first responders, DHS).

High Impact/Long Timeframe

- Develop short half-life compound detection technology
 - Novel matrices (ex. teeth)
- Environmental sample analysis database (expanding on NHANES).
- Developing better models that link source with behavior to predict exposure.

Discussants

David Balshaw

Rosemary Castorina

Brian Curwin

Julie Daniels

Paul Foster

Julia Gohlke (chairperson)

Kim Gray

Grace Kissling

Susan Korrick

Richard Kwok

Scott Masten

Minerva Mercado-

Feliciano (rapporteur)

Moiz Mumtaz

Chirag Patel

Woody Setzer

Rogelio Tornero-Velez