

Prioritization: November 2016 Update

Nov. 15, 2016

Carcinogen Identification Committee Meeting

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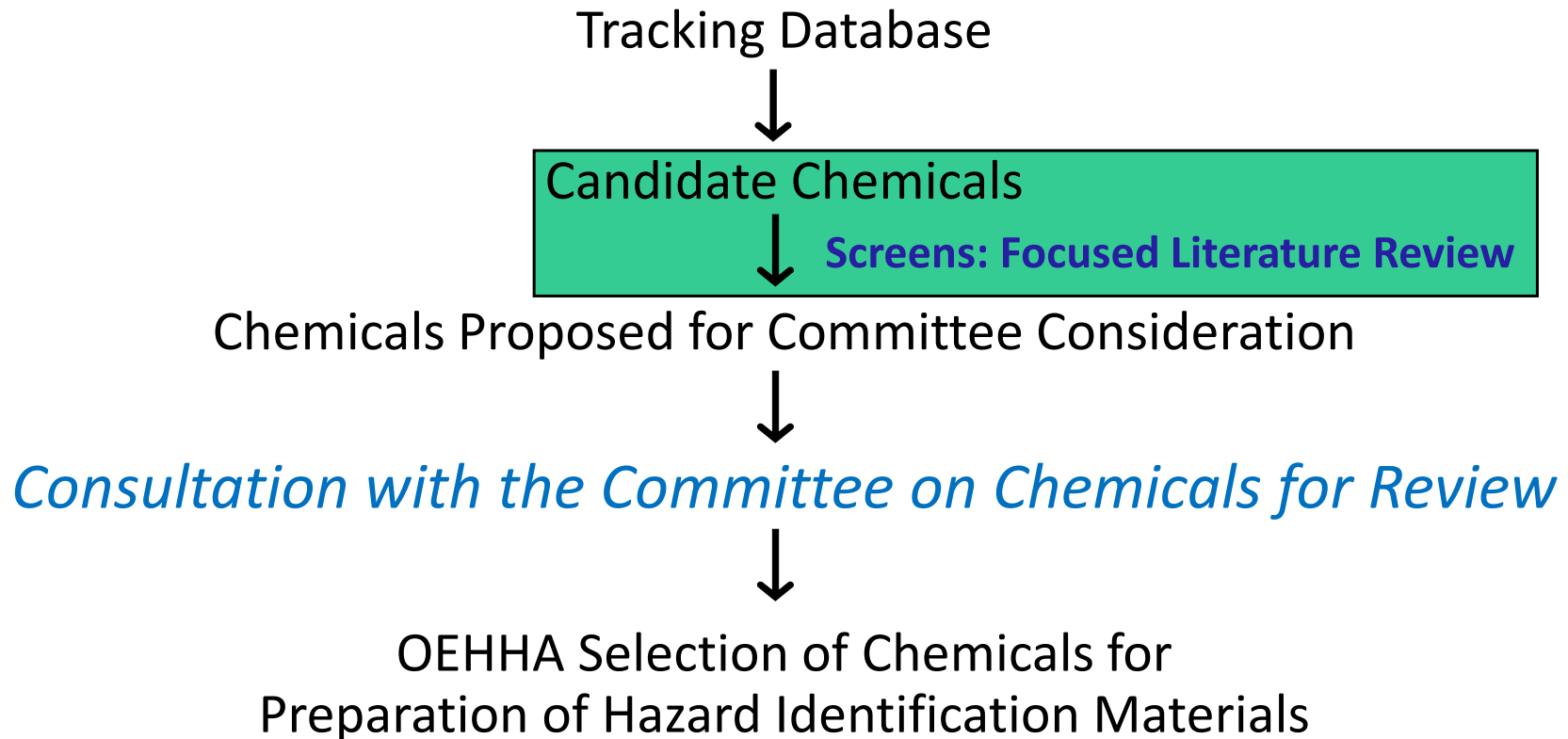


Prioritization Process

- **Purpose** – to identify chemicals for evaluation by the CIC
- **Goal** – to focus the efforts of the CIC on chemicals that may pose significant hazards to Californians

*Prioritization is a **preliminary appraisal**
of the evidence of hazard*

Prioritization Process



Screening of Candidate Chemicals

- **2009 - 2011** **380+ chemicals screened**
 104 chemicals to CIC
- **Ongoing Screening of**
 - New additions to the Tracking Database
 - New information on previously screened chemicals
- **Ongoing**
 - Proposals of chemicals for CIC consideration
 - Consultation with CIC

Screening of Candidate Chemicals

1. Apply **Human Data Screen**
2. Apply **Animal Data Screen**
3. Conduct **Preliminary Toxicological Evaluation** of chemicals identified through these screens
4. Identify **Chemicals Proposed for CIC Consideration**

Human Data Screen

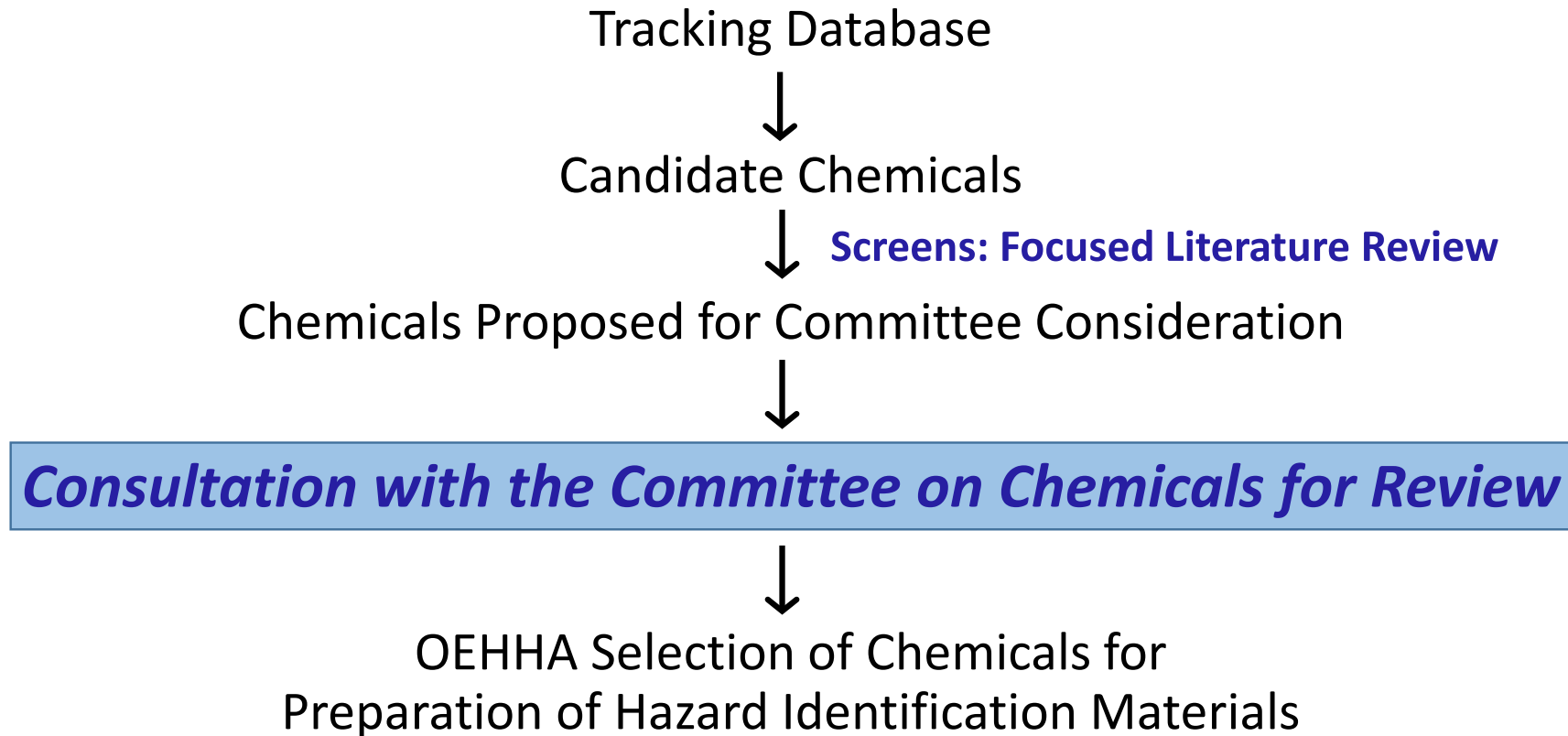
- **Epidemiology study(s) report positive association between exposure and increased cancer risk**
 - More weight given to analytical studies
 - Cancer effect can be attributed to the chemical with some confidence

Animal Data Screen

- **Two or more positive*** animal cancer bioassays; **or**
- **One positive** animal cancer bioassay, **with**
 - Malignant (or combined malignant and benign) tumors ***occurring to an unusual degree*** with regard to incidence, site or type of tumor or age at onset; **or**
 - Findings of ***tumors at multiple sites***; **or**
 - Evidence from a ***second animal study*** of ***benign tumors known to progress to malignancy***

*An increased incidence of malignant or combined malignant and benign tumors

Prioritization Process



Chemicals for CIC Consultation November 15, 2016

Exposure Characteristics and Types of Studies Providing Evidence of Carcinogenicity

Chemical Name	Exposure				Human Data			Animal Data					Other Relevant Data				
	Widespread	High in frequent consumers	Limited / occupational	High in infrequent consumers	Analytical	Descriptive	Case series / reports	Two or more studies	One study w/ unusual incidence, site/type, age at onset	One study and second study with benign tumors only	One study	Tumor initiation / promotion or co-carcinogenicity studies	Genotoxicity	Carcinogenic metabolites	Structural similarity with tumorigens or P65 carcinogens	Hormonal activity / disruption	Other mechanistic studies
Aspartame ¹	X	X			X	X		X					X	X			
Asphalt and Asphalt Emissions Associated with Road Paving and Asphalt and Asphalt Emissions Associated with Roofing			X		X			X				X	X	X			X
Methyl Chloride			X		X				X				X		X		
Type I Pyrethroids ²	X				X			X					X		X	X	X
Vinyl Acetate	X				X			X					X	X			

¹ Ranked in 2009 as 'medium' priority. Additional epidemiology data, animal cancer bioassays, and genotoxicity data available now.

² Permethrin ranked in 2009 as 'medium' priority. Additional epidemiology data available now. Metofluthrin ranked in 2011 as 'low' priority. No additional data identified.

Asphalt and Asphalt Emissions Associated with Road Paving **and** **Asphalt and Asphalt Emissions Associated with Roofing**

- **Advise whether *asphalt and asphalt emissions associated with road paving* should be considered for listing at a future meeting**
- **Advise whether *asphalt and asphalt emissions associated with roofing* should be considered for listing at a future meeting**



Type I Pyrethroids

Advise whether the *chemical group*, or *specific individual compounds within the group* should be considered for listing at a future meeting.

