

Sixth IARC *Monographs* Advisory Group on priorities for future evaluations

Priority List of agents and exposures to consider in future IARC *Monographs*

<i>Agent (present evaluation)</i>	<i>Priority (urgency)</i>	<i>Comments</i>
Industrial chemicals		
Carbon black (2B)	high	New epidemiological studies (most informative: carbon black production) No new animal carcinogenicity data Mechanistic discussion (ultrafine-particle issue)
Ethylbenzene (2B)	low	No epidemiological studies relevant for re-evaluation New animal carcinogenicity data
Ethylene glycol monobutylether (2-butoxyethanol), propylene glycol monomethylether (1-methoxy-2-propanol) and some related glycol ethers	high	No epidemiological studies relevant for (re)evaluation NTP carcinogenicity study in rats and mice No hematoxicity observed in humans Widespread use and public health concern
Fluid catalytic cracking oil (2B)	delete	No epidemiological studies relevant for re-evaluation No new animal carcinogenicity data
Formaldehyde (2A)	high	New epidemiological studies available; two more will be finished soon No new animal carcinogenicity data Complex mechanistic data
Glutaraldehyde (and other aldehydes)	low	Used as substitute for formaldehyde NTP carcinogenicity study in rats or mice
	high	In combination with formaldehyde
Halothane (3)	delete	No new data relevant for re-evaluation Recent Dutch evaluation provides no new evidence of carcinogenicity
Lead and lead compounds (2B/3)	high (urgent)	New epidemiological studies and meta-analysis available New NTP document available soon Complex mechanistic data
Organic fibres: <i>para</i> -aramid, cellulose, polyvinyl alcohol (PVA)	high	Some epidemiological data available Animal carcinogenicity data available on <i>p</i> -aramid, cellulose and PVA (mechanistic issues; durability, study design) Widely used as substitutes for MMVF
Titanium dioxide	high	On-going epidemiological studies Mechanistic discussion (ultrafine-particle issue) (see carbon black)

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Vanillin	delete	No relevant data available
Complex mixtures		
Bitumen (US: asphalt) (2B/3)	high	No new conclusive evidence Several on-going epidemiological and animal carcinogenicity studies
Diesel engine exhaust (2A)	high	Extensive new epidemiological studies, re-analyses and meta-analyses Potential major public health relevance In combination with gasoline engine exhaust
Gasoline engine exhaust (2B)	low	No animal data for gasoline exhaust Few epidemiological studies specifically addressing gasoline exhaust
	high	In combination with diesel engine exhaust
Occupational exposures or occupations		
Aluminum production (1)	delete	No new data relevant for re-evaluation of specific processes
Wood dust (hard and soft wood) (1)	delete	Difficult to disentangle soft and hard wood effects Recent SCOEL evaluation provides no new evidence
Lifestyle factors		
Alcoholic beverages (1)	high	- additional cancer sites (<u>breast</u> , liver, colorectal cancer) - better knowledge of mechanisms of action
Smokeless tobacco including moist oral snuff (1)	high	- epidemiology data on moist snuff and other smokeless tobacco products In combination with nicotine-derived nitrosamines
Nicotine-derived nitrosamines (i.e., NNN, NNK) (2B)	high	- new mechanistic data and human exposure information using biomarkers In combination with smokeless tobacco
Pharmaceutical drugs		
Oral contraceptives (1) Hormone replacement therapy (2B/1)	high	- evidence of additional cancer sites for oral contraceptives (OC) (cervical cancer, especially in HPV-positive women) and hormone replacement therapy (HRT) (breast cancer and ovarian cancer) - new practices and dosages
	high	This topic was evaluated recently and some studies are still on-going (HRT)

<i>Agent (and present evaluation)</i>	<i>Priority (urgency)</i>	<i>Comments</i>
Treatment regimens related to acid peptic disease	high	- this topic will be combined with a review of <i>Helicobacter pylori</i> infection - new data on aetiology of <i>H. Pylori</i> - widespread exposure of the regimens
Primidone	high	- long-term use as anti-epileptic - NTP animal carcinogenicity study
Salicylazosulfapyridine	high	- long-term human exposure as anti-inflammatory drug - NTP animal carcinogenicity study
Food additives, contaminants and components		
Urethane (2B)	high	- new mechanistic data - NTP report will soon be available Within the framework of a re-evaluation of 'alcoholic beverages'
Naturally occurring substances		
Growth hormones (GH)	low	- children with growth deficiencies are given GH - possible human exposure because GH is given to cattle - animal data show increase in mammographic densities and prostatic hyperplasia in macaques
Methyl eugenol	low	- widespread but low human exposure - NTP animal carcinogenicity study
Nitrate, nitrite and endogenous nitrosation	high	- epidemiological studies on fertilizer workers and on nitrate in drinking water <i>An ad hoc</i> planning meeting is needed to define the scope of this Monograph
Ptaquiloside and bracken fern	high	- new animal carcinogenicity data and some epidemiology in relation to bracken fern
Insulin-like growth factors (IGF)	low	- increase in endogenous IGF concentration in serum would lead to increase in breast, prostate and colon cancer. This is supported by on-going <i>in vitro</i> studies - IGF-1 present in cows' milk, possibility of human exposure - data on transgenic animals are available

<i>Agent (and present evaluation)</i>	<i>Priority (urgency)</i>	<i>Comments</i>
Environmental contaminants		
Air pollution	high	Could be divided into - outdoor air pollution - indoor air pollution An <i>ad hoc</i> planning group should convene to define the scope of this/these monograph(s)
Benzene (1)	low	- additional organ sites - new mechanistic data International meeting on benzene to be held soon
Methyl- <i>t</i> -butylether (MTBE) (3)	delete	No new data since previous evaluation
Microcystins and blue-green algae	high	- individuals exposed through food/water consumption
Sulfur dioxide (SO ₂) (3)	low high	- new epidemiology data When considered in a Monograph on 'air pollution'.
Pesticides		
Chlordecone (2B)	delete	- no new data relevant for a re-evaluation
Chlorophenoxy herbicides (2B)	Low	- some new epidemiology data
DDT (2B)	Low	- some new epidemiology data Could be evaluated together with chlorophenoxy herbicides
Acrylamide (2A)*		

* The Advisory Group discussed the issue of 'acrylamide in food', which has recently attracted much attention. As many new data will become available in the next few years, a re-evaluation will be necessary in the not too distant future.

The Advisory Group also discussed some metals with increasing exposure (aluminum, palladium, titanium, uranium) and noted that a Workshop on 'Mechanisms of metal carcinogenesis' may be warranted to discuss the potential for combined evaluation of some metals, in the absence of metal-specific data on carcinogenicity in epidemiological studies and in experimental animals.

The Advisory Group discussed the topic 'Psychological stress/depressed behaviour in relation to breast cancer risk' - which was nominated for evaluation - and noted that some epidemiological studies are available. The Group did not recognize the need to place this topic on the Priority List.