



Welcome to Volume 109 of the *IARC Monographs*!

International Agency for Research on Cancer
Lyon, France



You are part of a worldwide endeavour that since 1971 has involved over 1000 scientists from over 50 countries



Overview

- Background
- Contents of a volume of Monographs
- This week's meeting
- WHO Declaration of Interests, freedom from interference

Background

The first step in cancer prevention is to identify the causes of human cancer

The *IARC Monographs* are a series of scientific reviews that identify environmental factors that can increase the risk of cancer in humans

Each *Monograph* includes

- Critical review of the pertinent scientific literature
- Evaluation of the weight of the evidence that the agent can alter the risk of cancer in humans

The *IARC Monographs* are unique in that they are developed by experts who conducted the original research

“The encyclopaedia of carcinogens”

The *IARC Monographs* evaluate

- Chemicals
- Complex mixtures
- Occupational exposures
- Physical and biological agents
- Lifestyle factors

More than 900 agents have been evaluated

- 111 are *carcinogenic to humans* (Group 1)
- 66 are *probably carcinogenic to humans* (Group 2A)
- 285 are *possibly carcinogenic to humans* (Group 2B)



Lorenzo Tomatis
1929-2007

National and international health agencies use the *Monographs*

- As a source of scientific information on known or suspected carcinogens
- As scientific support for their actions to prevent exposure to known or suspected carcinogens

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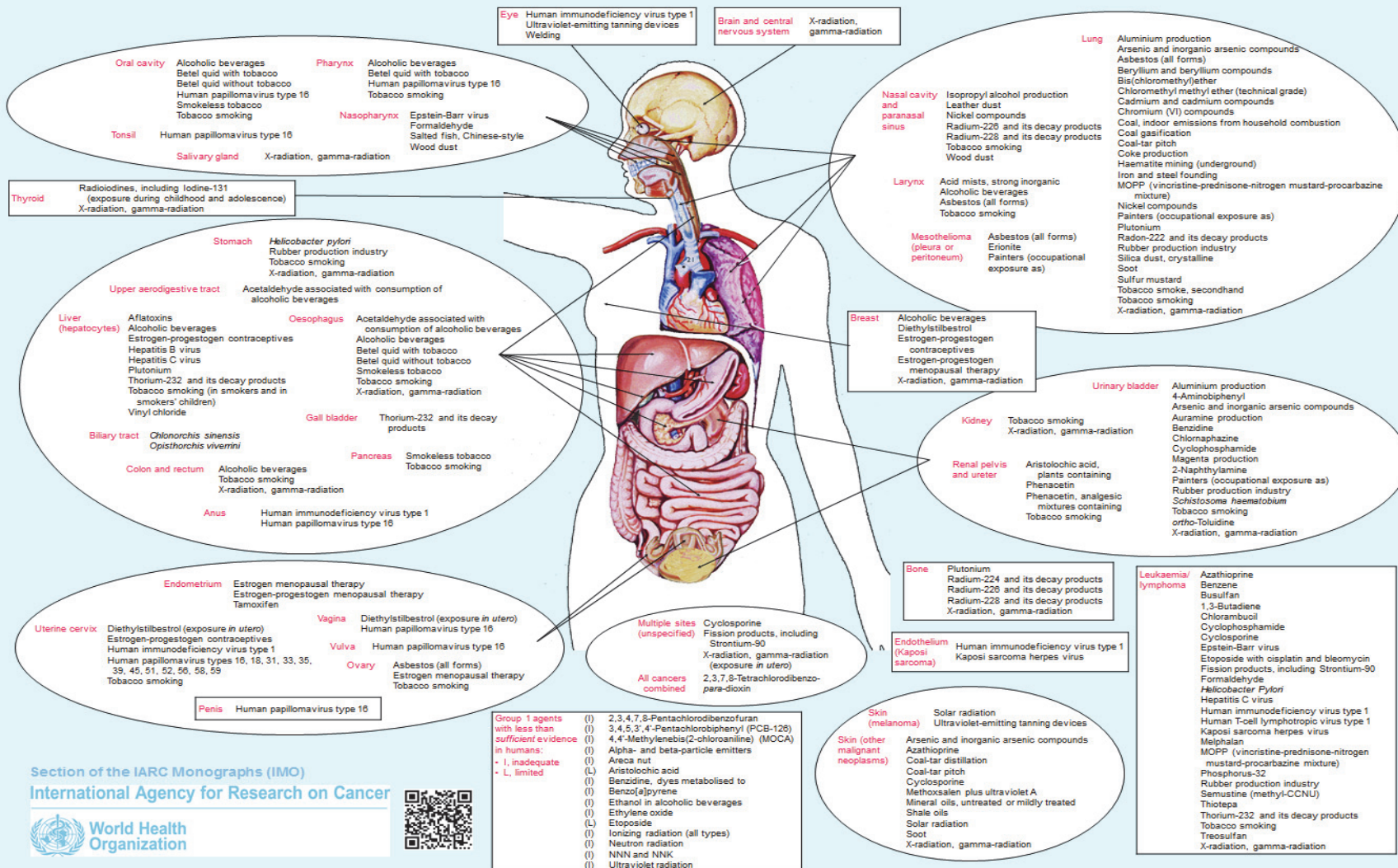




Preventable Exposures Associated With Human Cancers

Vincent James Cogliano, Robert Baan, Kurt Straif, Yann Grosse, Béatrice Lauby-Secretan, Fatiha El Ghissassi, Véronique Bouvard, Lamia Benbrahim-Tallaa, Neela Guha, Crystal Freeman, Laurent Galichet, Christopher P. Wild

The IARC Monographs Volume 100 : The known causes of human cancer by organ site



Section of the IARC Monographs (IMO)
International Agency for Research on Cancer



Highlights from Volume 100 and Future Directions

- Further research often finds additional cancer sites
- New research continues to find additional human carcinogens, e.g. aristolochic acid
- The use of mechanistic data to identify carcinogens is accelerating, e.g. dioxin-like substances
- Further research has confirmed carcinogenic potential under conditions of lower exposure, e.g. radon
- Future directions
 - Tumour (Site) Concordance between Humans and Experimental Animals
 - Mechanisms Involved in Human Carcinogenesis

Contents of Volume 109

Preamble

General Remarks

Several *Monographs* . . .

1. Exposure data
2. Cancer in humans
3. Cancer in animals
4. Mechanistic and other relevant data

5. Summary

6. Evaluation and rationale

References

Evaluation



Critical review

Critical review

All pertinent epidemiological studies and cancer bioassays

- Study designs and results in tables
- Description in text [**comments in brackets**]

Representative mechanistic results important to the evaluation

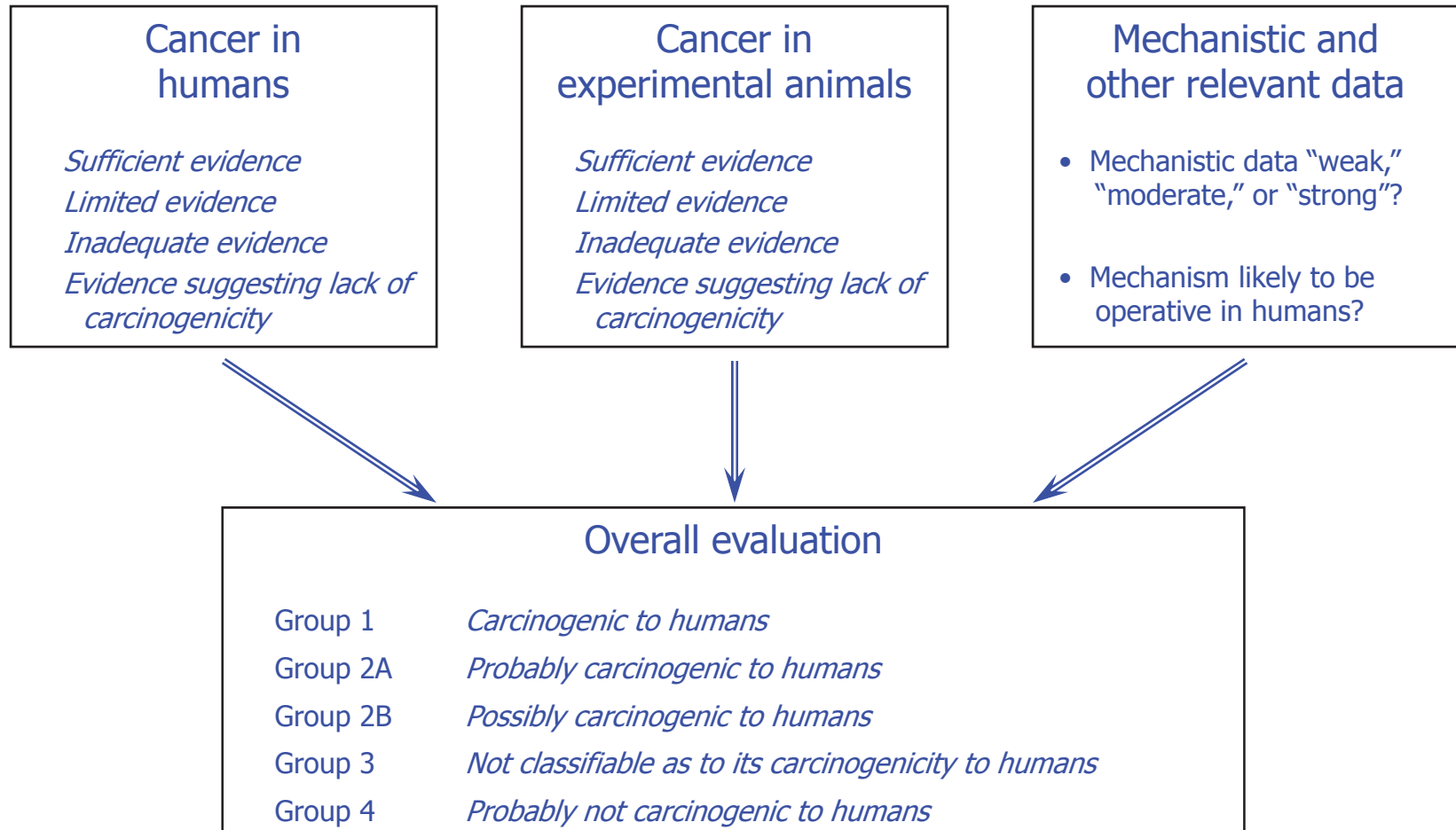
- Written in the form of a review article

All studies must be publicly available (published or accepted)

- *Include studies published in languages other than English*
- Do not consider research in progress, articles in preparation, consultant reports, or anything that is not publicly available

Each study summary should be written or reviewed by someone not associated with the study

Evaluation of the weight of the evidence



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Guidance can be found in the Preamble

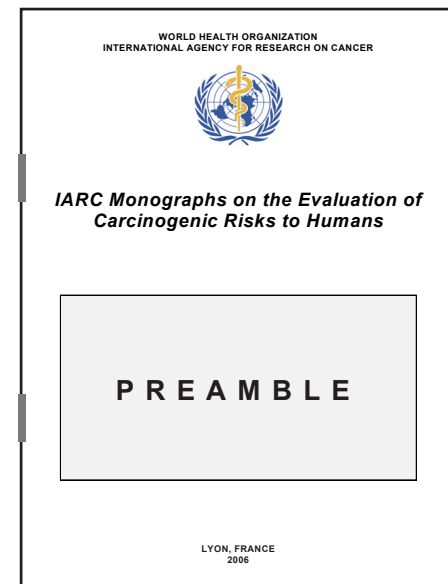
“The Preamble to the *IARC Monographs* describes the objective and scope of the programme, the scientific principles and procedures used in developing a *Monograph*, the types of evidence considered, and the scientific criteria that guide the evaluations.”

A. GENERAL PRINCIPLES AND PROCEDURES

1. Background
2. Objective and scope
3. Selection of agents for review
4. Data for the *Monographs*
5. Meeting participants
6. Working procedures

B. SCIENTIFIC REVIEW AND EVALUATION

1. Exposure data
2. Studies of cancer in humans
3. Studies of cancer in experimental animals
4. Mechanistic and other relevant data
5. Summary
6. Evaluation and rationale



The *Monograph* meeting: preparations

IARC selects agents for review based on

- Evidence of human exposure
- Some evidence or suspicion of carcinogenicity

Advisory Groups meet every 5 years to recommend agents for review

IARC selects Working Group Members based on

- Knowledge and experience
- Absence of real or apparent conflicts of interests

Consideration is also given to demographic diversity and balance of scientific findings and views

Working Group Members search the scientific literature and prepare preliminary working papers for the critical review

- IARC formats the working papers to reflect “house style”

Meeting participants

Working Group Members

- Write the critical reviews and develop the evaluations
- Serve as individual scientists, not representatives of any organization

Invited Specialists assist in the WG

- Have similar knowledge, but also a conflicting interest
- Do not serve as chair, draft text that describes or interprets cancer data, or participate in the evaluations

Representatives of national and international health agencies

Observers

- Here to observe the meeting, not to influence its outcome
- All participants agree to respect the *Guidelines for Observers*

IARC Secretariat

Monograph meetings are about peer review and consensus

Subgroup work

- Peer-review the working papers, develop subgroup drafts
- Identify key issues to be discussed in plenary
- Propose evaluations of the human evidence or animal evidence
- **Identify tumour sites and established or likely mechanistic events**

Plenary session

- Discuss the key scientific issues and reach consensus
- Peer-review the subgroup drafts
- Discuss the subgroup evaluations and reach consensus
- Develop the overall evaluations and reach consensus

*The entire volume is the joint product of the Working Group,
and there are no individually authored sections*

We will monitor progress each day

WORKING SCHEDULE – VOLUME 109

Revisions include the writing-up of the summaries

	Subgroup-1 Exposure	Subgroup-2 Epidemiology	Subgroup-3 Bioassays	Subgroup-4 Mechanisms	DEADLINE TO-PRODUCTION	PLENARY SESSION
Tue-8 9.30						Opening
11.00	1.1, -1.2	2.1.1, -2.1.2	3.2	4.2.1		
14.00	1.4.1a, b	2.1.3, -2.1.4	3.2	4.2.1		
16.15	1.4.2	2.1.5	3.2	4.2.4-5, -4.4		
Wed-9 9.00						Evaluation criteria
9.30	1.3, -1.5	2.2, -2.3	3.3	4.2.2		
11.00	1.4.3	2.4, -2.5	3.3	4.2.3		
14.00	1.4.4, -1.4.1c*	2.6, -2.7	3.3	4.3	3.1	
16.15	1.4.1d, e**	2.8, -2.0	3.1	4.1		
Thu-10 9.00	1.1, -1.2-rev	2.1-rev	3.1	4.2.4-5-rev		
11.00	1.4.1-rev	2.1-rev	3.1	4.2.1-rev		
14.00	1.4.1-rev	2.1-rev	3.2-rev	4.2.1-rev		
16.15	1.3, 1.5-rev	2.2, -2.3-rev	3.2-rev	4.2.3c, d-rev		
Fri-11 9.00	1.4.3-rev	2.4, -2.5-rev	3.3-rev	4.2.2-rev	Deadline for Section 1.1-2	
11.00	1.4.4, -1.4.1c- rev*	2.6, -2.7-rev	3.3-rev	4.2.3a, b-rev		

Agents for this meeting

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
VOLUME 109: AMBIENT AIR POLLUTION
Lyon, France: 8-15 October 2013

International Agency for Research on Cancer



During and after this meeting

- Please give your pending assignments, hardcopies or PDFs of newly cited articles and suggestions for General Remarks to your subgroup rapporteur
- Embargo until press conference, 17 October
- IARC scientists will write and publish together with the IARC Monograph WG a two-page summary for *The Lancet Oncology* (to be submitted on 21 October)
- IARC scientists will review the final text and tables for scientific accuracy and clarity
- IARC will edit and publish the Volume on-line and in print and you will receive a free print copy

WHO Declaration of Interests

To ensure public confidence that interested parties do not have links to the Working Group, IARC strives to identify and avoid real or apparent conflicts of interests

- Earlier you declared employment, research, and financial interests
- You are being asked now to update your Declaration

Pertinent interests will be disclosed

- To meeting participants
- To the public ((<http://monographs.iarc.fr/>)
- In the published volume of *Monographs*

You are being asked also to complete the conflict-of-interest form required by *The Lancet Oncology*

- IARC will send *TLO's* form — not WHO's form — to *TLO*;
- *TLO* will summarize this information alongside IARC's summary

Your Declaration should include . . .

Employment and consulting (past 4 years or anticipated)

Research support to you or your unit (past 4 years or anticipated)

Investment interests (e.g. stock, business venture)

Intellectual property (e.g. patents)

Public statements and positions

- especially those that are part of a court or government process

Additional information

- Competing interests
- Travel support, speakers bureau
- Anything that might be perceived as affecting independence

Tobacco interests

★★★ Declare all pertinent interests —
even if they would not influence you ★★★

Freedom from interference

The Working Group should be free from all attempts at interference — before, during, and after the meeting —

- NO lobbying by interested parties
- NO written materials from interested parties
- NO offers of meals, drinks, social invitations, or other favours
- NO reporting, blogging, or otherwise commenting about the meeting during the course of the meeting
- NO recording of any part of the meeting by any means

“It is not acceptable for Observers or third parties to contact other participants before a meeting or to lobby them at any time.”

• Preamble Part A, Section 5

You are responsible to safeguard the integrity of everyone’s work

- Resist all outside attempts to influence the meeting
- Report all attempts, *in confidence*, to the head of the programme

Acknowledgements



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- **U.S. National Cancer Institute (since 1982)**
- **European Commission, Employment and Social Affairs (since 1986)**
- **U.S. National Institute of Environmental Health Sciences (since 1992)**

[International Agency for Research on Cancer](http://www.iarc.fr)

