



Newsletter of Science Society

November, 2013

二零一三年十一月號

-CARCINOGENS IN OUR LIFE-

Recently, the specialized cancer agency of the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), has announced that it has classified outdoor air pollution as carcinogenic (Group 1) to humans.

According to the IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, the carcinogens (致癌物) can be divided into four groups.

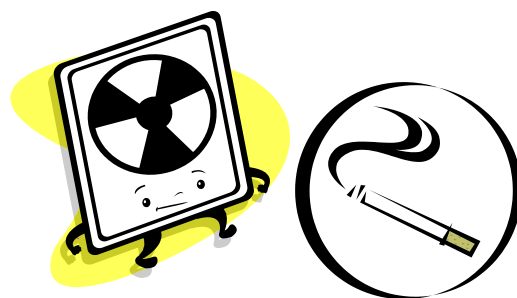


Group 1: Carcinogenic to humans

This category is used when there is *sufficient evidence of carcinogenicity (致癌力) in humans*.

Exceptionally, an agent may be placed in this category when evidence of carcinogenicity in humans is less than sufficient but there is sufficient evidence of carcinogenicity in experimental animals and strong evidence in exposed humans that the agent acts through a relevant mechanism of carcinogenicity.

E.g. Diesel exhaust (柴油引擎廢氣), Radioactive substance, Cigarette



Group 2A: Probably carcinogenic to humans

This category is used when there is *limited evidence of carcinogenicity in humans* and *sufficient evidence of carcinogenicity in experimental animals*.

Exceptionally, an agent may be classified in this category solely on the basis of limited evidence of carcinogenicity in humans. An agent may be assigned to this category if it clearly belongs, based on mechanistic considerations, to a class of agents for which one or more members have been classified in Group 1 or Group 2A.

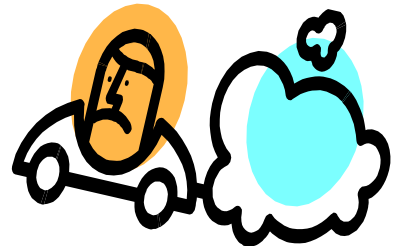
E.g. Methanal (甲醛), Butadiene (丁二烯)

Group 2B: Possibly carcinogenic to humans

This category is used for agents for which there is *limited evidence of carcinogenicity in humans* and *less than sufficient evidence of carcinogenicity in experimental animals*.

In some instances, an agent for which there is inadequate evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals together with supporting evidence from mechanistic and other relevant data may be placed in this group. An agent may be classified in this category solely on the basis of strong evidence from mechanistic and other relevant data.

E.g. Petrol exhaust, Electromagnetic wave (電磁波)



Group 3: Not classifiable as to its carcinogenicity to humans

This category is used most commonly for agents for which the evidence of carcinogenicity is *inadequate in humans* and *inadequate or limited in experimental animals*.

Exceptionally, agents for which the evidence of carcinogenicity is inadequate in humans but sufficient in experimental animals may be placed in this category when there is strong evidence that the mechanism of carcinogenicity in experimental animals does not operate in humans. Agents that do not fall into any other group are also placed in this category.

An evaluation in Group 3 is *not a determination of non-carcinogenicity or overall safety*. It often means that *further research is needed*, especially when exposures are widespread or the cancer data are consistent with differing interpretations.

E.g. Caffeine (咖啡因), Food colouring



Group 4: Probably not carcinogenic to humans

This category is used for agents for which there is evidence suggesting *lack of carcinogenicity in humans and in experimental animals*.

In some instances, agents for which there is inadequate evidence of carcinogenicity in humans but evidence suggesting lack of carcinogenicity in experimental animals, consistently and strongly supported by a broad range of mechanistic and other relevant data, may be classified in this group.

E.g. Caprolactam CPL (己内酰胺)



Seminars:

"Hong Kong Meteorological Society 25th Anniversary Distinguished Meteorologists" Lecture Series					
Date	Time	Venue	Speaker	Topic	
2/11/13 (SAT)	2:00 p.m. – 3:00 p.m.	Lecture Hall, Hong Kong Science Museum	Professor Qin Dahe 秦大河教授 (中國氣象學會理事長)	Climate Change–Now and Then 氣候轉變 – 現在和未來 Language: Putonghua	Free admission on first come, first served basis. 免費活動， 即場入座， 座位先到先得。
2/11/13 (SAT)	3:00 p.m. – 4:00 p.m.	Lecture Hall, Hong Kong Science Museum	Professor Jou Jong-Dao 周仲島教授 (臺灣大學大氣科學 系教授)	Extreme Weather under Climate Change – Taiwan Experience 氣候轉變中的極端天氣 – 台 灣經驗 Language: Putonghua	
2/11/13 (SAT)	4:00 p.m. – 5:00 p.m.	Lecture Hall, Hong Kong Science Museum	Mr. Lam Chiu- Ying 林超英先生 (香港氣象學會前會 長及榮譽會員)	Climate Change – Reflections on Sustainable Development 氣候轉變 – 反思可持續發展 Language: Cantonese	

Seminars @HWC:

Date	Time	Venue	Speaker	Topic
7/11/13(THU)	4:15 p.m. – 5:15 p.m.	Chemistry Laboratory	Prof. W. H. Chan 陳永康教授 (Department of Chemistry, Faculty of Science, The Hong Kong Baptist University)	Green Chemistry for sustainable Development of Humankind By Department of Chemistry, HKBU Level: S5-S6

~~ TIME TO RELAX ~~

Learning about Science

& Having Fun with

Sound of Science~!!!



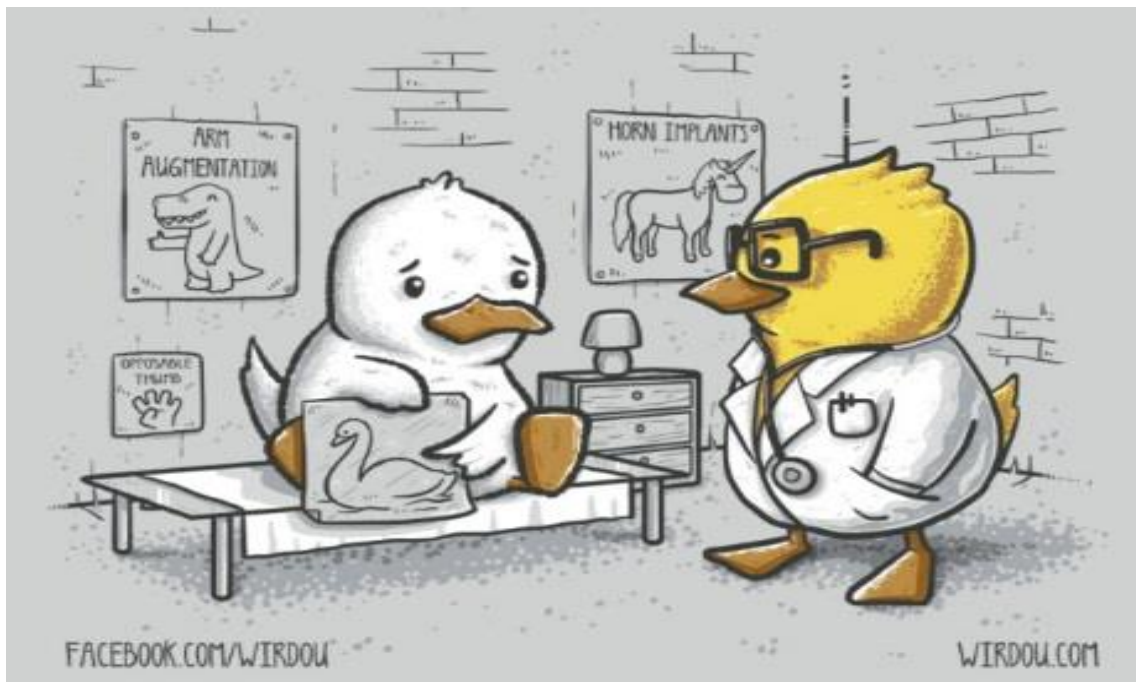
Sudoku

1				7
2	9			3 5
4 9 8			3	
		4 5 6		
		3		
	3 6 9			
		1		3 5 2
1 7			2	9
3				1

Previous Sudoku Answer:

5	3	4	6	7	8	9	1	2
6	7	2	1	9	5	3	4	8
1	9	8	3	4	2	5	6	7
8	5	9	7	6	1	4	2	3
4	2	6	8	5	3	7	9	1
7	1	3	9	2	4	8	5	6
9	6	1	5	3	7	2	8	4
2	8	7	4	1	9	6	3	5
3	4	5	2	8	6	1	7	9

COMIC CORNER:



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