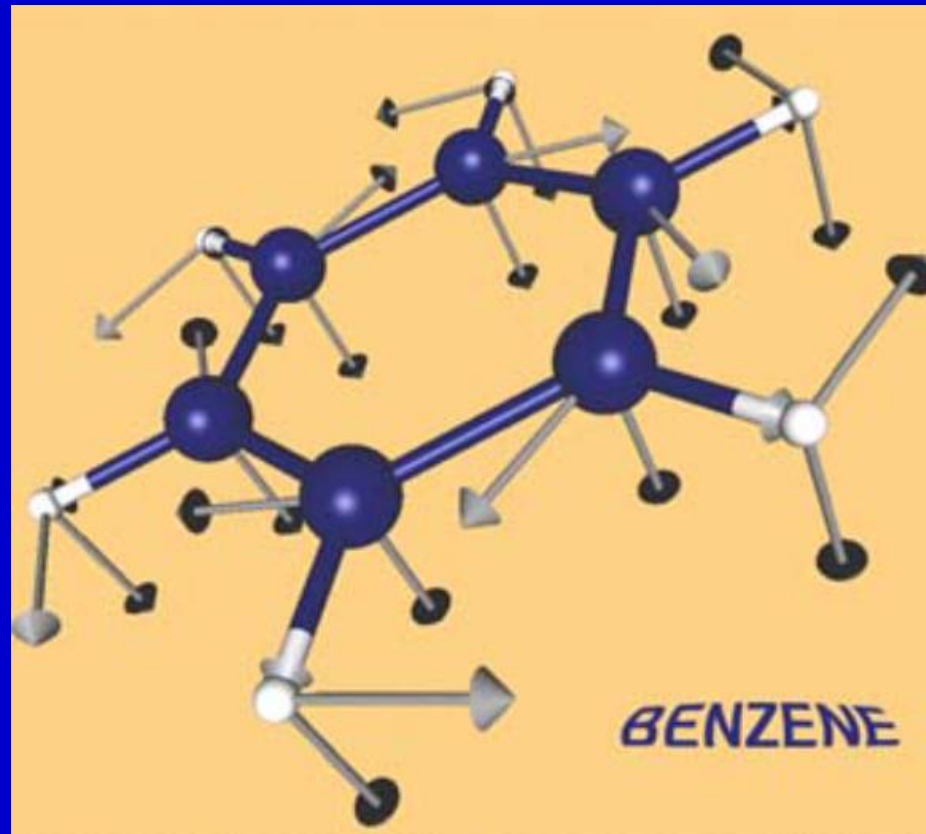


LOW LEVEL BENZENE AND HEMATOPOIETIC AND LYMPHORETICULAR NEOPLASMS

by

Myron A. Mehlman, Ph.D.



BENZENE-CAUSED CANCERS IN RATS AND MICE

MALTONI et al. (1989)

- Zymbal gland
- Oral & nasal cavity
- Skin
- Forestomach
- Mammary gland
- Hemolymphoreticular tumors
- Lung
- Hepatomas; Angiosarcoma
- ---
- ---

HUFF et al. (1989)

- Zymbal gland
- Oral & nasal cavity
- Skin
- Forestomach
- Mammary gland
- Lymphoma, Leukemia
- Lung
- ---
- Ovary, Uterus
- Harderian gland

TYPES OF LEUKEMIAS AND LYMPHOMAS FROM BENZENE EXPOSURE IN HUMANS*

Acute myelogenous leukemia	Chronic lymphocytic leukemia
Acute lymphocytic leukemia	Hairy cell leukemia
Acute erythroleukemic leukemia	Hodgkin's lymphoma
Acute myelomonocytic leukemia	Non-Hodgkin's lymphoma
Acute promyelocytic leukemia	Lymphosarcoma
Acute undifferentiated leukemia	Multiple myeloma
Chronic myelogenous leukemia	Reticulum cell sarcoma

^a Sources: Aksoy et al., 1989; Bond et al., 1986; Decouflé et al., 1953; Delore et al., 1928; Goguel et al., 1967; Goldstein, 1977; Hayes et al., 1972; Infante et al., 1985; 1995; McMichael et al., 1974, 1975, 1976; Rinsky, 1981, 1987; Savitz et al., 1997; Schwartz, 1987; Travis et al., 1994; Vianna & Polan, 1979; Vigliani et al., 1976; Wong, 1987; Yin et al., 1987, 1989, 1994, 1996.

EXCESS HUMAN CANCERS IN BENZENE WORKERS

LEUKEMIA

LUNG

LIVER

LYMPHOSARCOMA

STOMACH

ESOPHAGUS

NASOPHARYNX

INTESTINE (COLON)

KIDNEY

UROTHELIUM

Source: Acquavella (1991); Adelstein (1972); Berger & Manz (1992); Bond et al. (1985); Brown et al. (2002); Brownson et al. (1989); Creppi et al. (1997); Delahunt et al. (1995); Partenen et al. (1991); Goldberg MS et al. (2001); Greene et al. (1979); Hanis et al. (1979, 1982, 1985a,b); Lagorio et al. (1994); Lundberg & Milatou-Smith, 1998; Miller et al. (1986); Schnatter et al. (1993); Thomas et al. (1980); Yin et al. (1989).

- “The NTP's scientific peer review, by confirming low-dose effects as real and no longer "controversial," is a key step in the developing science of endocrine disruption.”
- **“NTP's conclusion means that low-dose considerations must be integrated into regulatory science.”**

REGULATION

OCCUPATIONAL STANDARDS for BENZENE in AIR

YEAR	RECOMMENDED BY	STANDARD, ppm*
1946	ACGIH	100
1947	ACGIH	50
1948-1956	ACGIH	35
1657-1976	ACGIH	25
1977	ACGIH	10
1986	ACGIH	10
1987	OSHA	1
1986	NIOSH	0.1 (proposed)
1900	ACGIH	0.1 (proposed)
1990	ACGIH	0.5 (final)
2004	COLLEGIUM RAMAZZINI	0.04

SHANGHAI STUDY & OTHER FOLLIES



MEHLMAN LETTER TO OIL REFINERY EXECUTIVES (Contd):

According to the Boston Globe report on April 26, 2005, Dr. Gerhard Raabe led the petroleum institute and product stewardship committee. The Boston Globe article states that:

“Dr. Gerhard Raabe was involved in raising money from oil companies for this study. Among senior investigators for this study are Drs. Otto Wong, Richard Irons, and Robert Schnatter.”

The proposed solicitation for oil company money states objectives and **expected conclusions** of the “study” even prior to its beginning.

MEHLMAN LETTER TO OIL REFINERY EXECUTIVES (Contd):

“Project Value - How Will Research Results Enhance Industry's Ability to Achieve Objectives on Issue of Global Impact and Concern:

“The planned research is expected to:

- Provide strong scientific support for the lack of a risk of leukemia or other hematological disease at current ambient benzene concentrations to the general population.*
- Establish that adherence to current occupational exposure limits (in the range of 1-5 ppm) do not create a significant risk to workers exposed to benzene.*
- Refute the allegation that Non-Hodgkins lymphoma can be induced by benzene exposure.”*

MEHLMAN LETTER TO OIL REFINERY EXECUTIVES (Contd):

“Project Value - How Will Research Results Enhance Industry's Ability To Achieve Objectives On Issue Of Global Impact And Concern:

“The planned research may establish:

- That there is an absolute threshold for benzene-induced hematological disorders below which there is no effect.*
- The extent to which "sensitive subpopulations" based upon age, genetic or other factors either do or do not exist.*

Establish a unique molecular signature to distinguish benzene-induced leukemias from leukemias arising from other causes.”

SHANGHAI HEALTH STUDY

In response to my letter dated June 29, 2005 to forty-five (45) Petroleum Industry executives, I received one (1) response dated July 29, 2005 from:

**Patsy Clegg
Oversight Committee Chair
Shanghai Health Study
1220 L. Street, NW
Washington, D C 20005**

STATEMENTS MADE BY EMINENT MEN OF SCIENCE DURING CONGRESSIONAL HEARINGS



Hearing on the Regulation of Tobacco Products
House Committee on Energy and Commerce
Subcommittee on Health and the Environment
April 14, 1994

“Neither that evidence [1964 Surgeon General’s Report] nor any reported since then suffices to demonstrate that smoking causes any disease.”

Leo Katz, Ph.D.
Professor of Statistics and
Director of the Statistical Laboratory, Michigan State University.
Fellow of the American Statistical Association.
April 26, 1969

Cited in Testimony before the House of Representatives, U.S.: Report of Proceedings.
Hearings held before Committee of Interstate and Foreign Commerce.
Labeling and Advertising of Cigarettes. Washington, DC.

**“The concept that cigarette smoking is the cause of
the increase in lung cancer and emphysema
is a colossal blunder.”**

Milton B. Rosenblatt, M.D.
Visiting Physician, Metropolitan and Coler Hospitals.
Associate Attending Physician, Flower Fifth Avenue Hospital, N.Y.
April 28, 1969

Cited in Testimony before the House of Representatives, U.S.: Report of Proceedings.
Hearings held before Committee of Interstate and Foreign Commerce.
Labeling and Advertising of Cigarettes. Washington, DC.

“There is no evidence of which I am aware that constituents of cigarette smoke have the capacity to produce dissolution of lung tissue (emphysema).”

John P. Wyatt, M.D.
Professor & Chairman of the Department of Pathology, University of Manitoba.
Former Professor and Head of Pathology, St. Louis University.
April 28, 1969

Cited in Testimony before the House of Representatives, U.S.: Report of Proceedings.
Hearings held before Committee of Interstate and Foreign Commerce.
Labeling and Advertising of Cigarettes. Washington, DC.

“To claim there is now sufficient scientific evidence to establish that cigarette smoking causes disease is, in my opinion, unjustified.”

Sheldon C. Sommers, M.D.

Pathologist and Director of Laboratories, Lenox Hill Hospital, N.Y.

Clinical Professor of Pathology, Columbia University College of Physicians and Surgeons.

Clinical Professor of Pathology, University of Southern California School of Medicine.

Teacher, Cornell Medical School, Tufts-New England Medical Center and

New York Medical College.

Research Director, Council for Tobacco Research - U.S.A.

Cited in Testimony before the House of Representatives, U.S.; Report of Proceedings. Hearings held before Committee of Interstate and Foreign Commerce. Labeling and Advertising of Cigarettes. Washington, D.C.

**“At the present time to accept
cigarette smoking as the cause of
cancer of the lung is to do so by edict only.”**

Hiram T. Langston, M.D.
Professor of Surgery, University of Illinois College of Medicine.
Chief Surgeon, Chicago State Tuberculosis Sanitarium.
President, American Association for Thoracic Surgery.
April 26, 1969

Cited in Testimony before the House of Representatives, U.S.; Report of Proceedings.
Hearings held before Committee of Interstate and Foreign Commerce.
Labeling and Advertising of Cigarettes. Washington, D.C.

SMOKERS AND NON-SMOKERS: FACTS YOU SHOULD KNOW

Both smokers and non-smokers deserve to know facts, not innuendo, about cigarettes. Yesterday, Philip Morris and other U.S. tobacco manufacturers helped to set the record straight by speaking before a Congressional committee. For your consideration, here are the highlights of the information presented by Philip Morris in that session.¹

¹“For a full transcript of the information presented by Philip Morris, the ingredients list, or further information, please call 1-800-852-8749.”

FACT:

“Philip Morris does not add nicotine to cigarettes.”

“The nicotine delivery of all commercial cigarettes is measured and disclosed to one tenth of a milligram, both in public releases by the Federal Trade Commission, and in every advertisement for the last 25 years. In the end, Philip Morris lowers the amount of nicotine naturally occurring in tobacco by between 50% in the case of a Marlboro, and 90% in an ultra-low brand.”

FACT:

“Philip Morris does not ‘manipulate’ nicotine levels.”

“We voluntarily opened our manufacturing operations to the Food and Drug Administration, in a good faith effort to resolve the allegations that we add or control its level in our cigarettes.

“Our manufacturing process includes over 400 quality control checkpoints and only two of them measure nicotine. In every case, and with every brand we manufacture, the nicotine level in the finished cigarette is lower than the nicotine level of the original, natural tobacco leaf.”

FACT:

“Philip Morris does not believe cigarette smoking is addictive.”

“People can and do quit smoking all the time. According to the 1988 Surgeon General’s Report, there are more than 40 million former smokers in the United States and 90% quit on their own, without any outside help.”

FACT:

“None of the ingredients added in the manufacture of cigarettes is harmful as used.”

“Cigarette ingredients have been scrutinized by the Department of Health and Human Services since 1986. In addition, an independent safety assessment was conducted by six renowned scientists. Their report concluded: “The ingredients added to tobacco in the manufacture of cigarettes by the six major U.S. manufacturers are not hazardous under conditions of use.”

FACT:

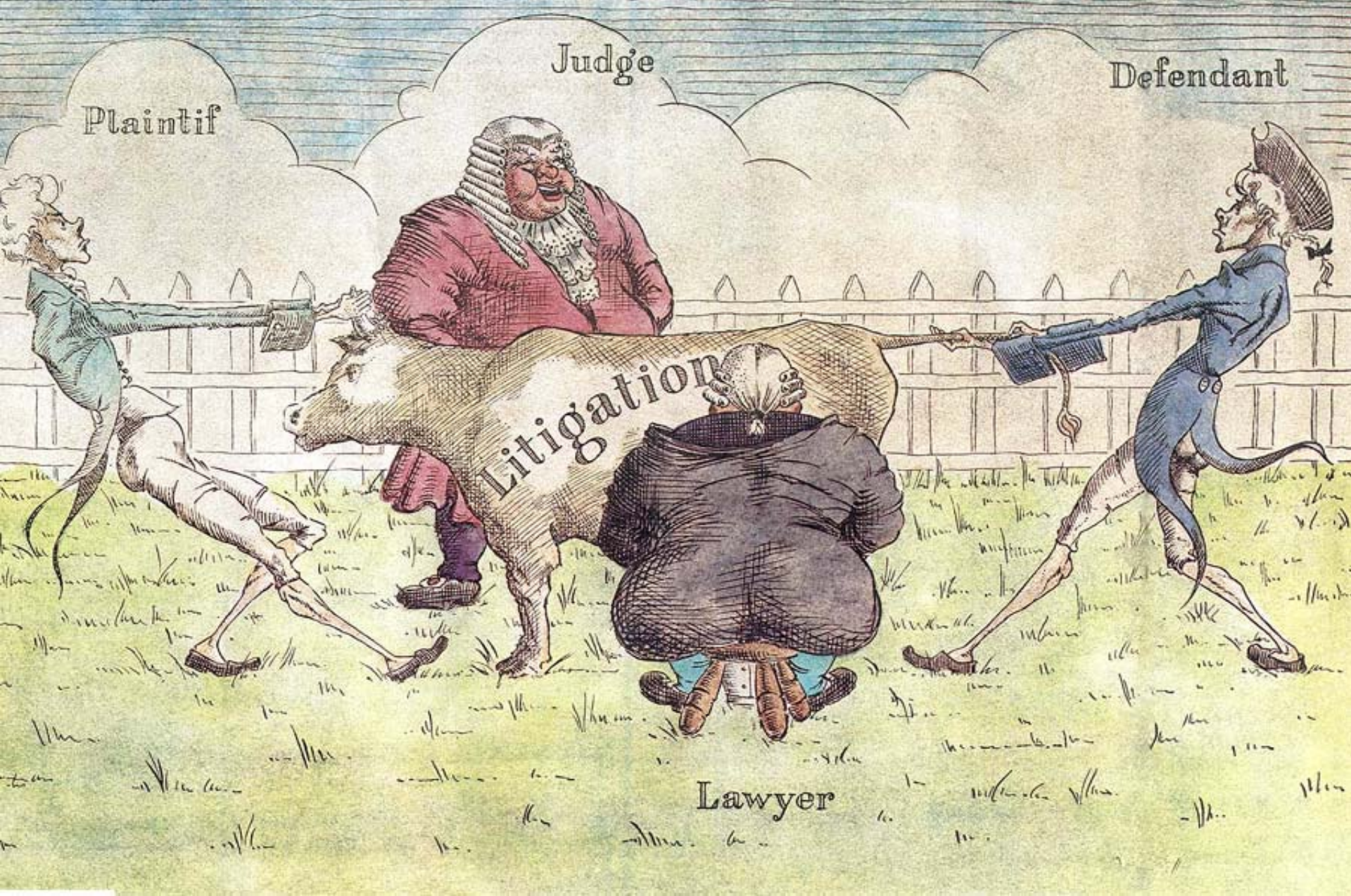
“Philip Morris has not used patented processes to increase or maintain nicotine levels.

“Philip Morris, like every other corporation, applies for, and obtains patents on virtually every innovation we pioneer. Philip Morris currently holds over 600 patents. They are publicly disclosed upon issuance through the U.S. Patent Office. Philip Morris has never used any of these patents to increase, or even maintain, nicotine levels in any of its products. In fact, the only nicotine related patents Philip Morris has ever used are for the reduction of nicotine.”



**Logo at the end of the
“Facts You Should Know”
document.**

**WHO WINS WHEN SAFETY LEVELS
ARE IGNORED OR BYPASSED?**



Plaintif

Judge

Defendant

Litigation

Lawyer

NOBODY REALLY WINS

TOXIC DECEPTION

**How the Chemical Industry Manipulates Science,
Bends the Law, and Endangers Your Health**

**Dan Fatin, Marianne Lavelle,
And the Center for Public Integrity**

A BIRCH LANE PRESS BOOK

Published by Carol Publishing Group

[A text that should be read by all attorneys. Mehlman]