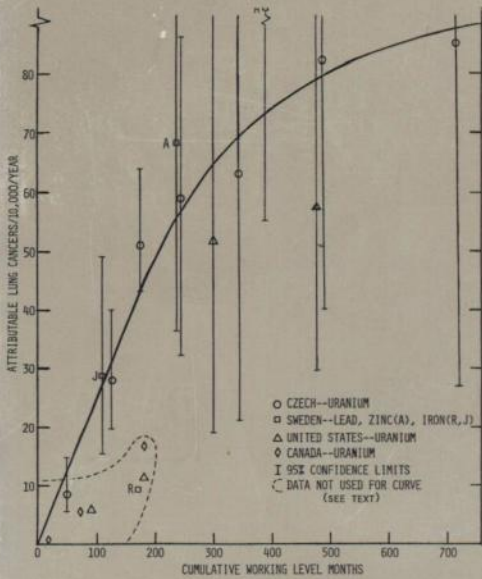




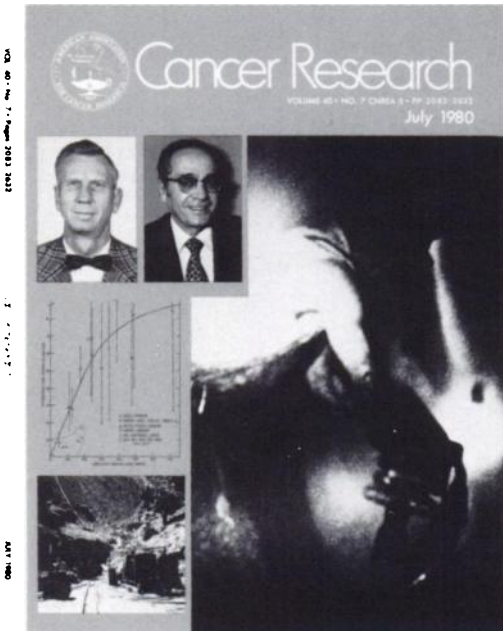
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COVER LEGEND



Radiation from inhaled radon daughter products is now established as a cause of lung cancer in both humans (Wagoner, J. K., *et al.*, N. Engl. J. Med., 273: 181, 1965) and animals (Experimental Lung Cancer. New York:Springer-Verlag, 1974). The lung cancers are induced by alpha particles emitted from dust deposited on the tracheobronchial epithelium.

Important evidence in radiation-induced lung cancer

was elicited from the long-term epidemiological and pathological observations on 4000 uranium miners on the Colorado plateau, assembled during the 1950's and subsequently followed for 20 to 25 years. Similar data were also generated from studies on miners in Canada, Czechoslovakia, and Sweden.

Lung cancer incidence among uranium miners is related to the exposure rate. The latent period is shortened by increased age when mining was started, by cigarette smoking, and by high exposure. The graph summarizes the worldwide data.

The uranium miner studies in the United States were organized and conducted by several agencies of the state and federal governments, including the Atomic Energy Commission and the United States Public Health Service. Among the many workers who have contributed to the studies over the past three decades, particularly prominent have been Dr. Victor E. Archer, medical director of the studies since 1956; Dr. Geno Saccomanno, pathologist and cytologist of Grand Junction, Colorado; D. A. Holaday, engineer; and Drs. Frank E. Lundin and Joseph K. Wagoner, statisticians.

The background photograph is of a miner working underground, the dust of his environment diffusing the light. Pictured also is an entrance to a typical mine. The portraits are of Dr. Victor E. Archer (*left*) and Dr. Geno Saccomanno (*right*), to whom we are indebted for the material. The graph is from Dr. Archer.

M. B. S.