John William Gofman, M.D., Ph.D. 1918-2007

What a LIFE! We miss you and thank you. We'll use your radiation and cardiac research to make the world safer and pass it on for future generations to use and expand.

Dr. John Gofman, born September 21, 1918, died August 15, 2007 at his home in San Francisco, California, He was a medical doctor, nuclear chemist, Manhattan Project scientist, co-discoverer of isotopes of uranium and protactinium, and the first to separate plutonium in usable quantities. He fought until the end policies to disperse plutonium and other radioactivity from the nuclear power/weapons fuel chain into the environment and out of control. He repeatedly stood up to government pressure to suppress the truth about radiation health dangers and set an example for scientific integrity.

Dr. Gofman did groundbreaking research in cardiac medicine, identifying and distinguishing what we now commonly refer to as "good" cholesterol and "bad" cholesterol. In May, 2007 the Journal of Clinical Lipidology named him the Father of Clinical Lipidology, honoring him for discoveries he made decades ago, now mainstream knowledge in the field.

His work to reduce unnecessary radiation exposure from medical procedures is beginning to take effect.

Thanks to his foresight, discipline, and good fortune of collaborating with Egan O'Connor, Executive Director and Editor for the Committee for Nuclear Responsibility (CNR, which he founded in 1971) his important contributions to radiation science are well documented, *if we take the time and concentration to learn for ourselves*. His insights are needed now, more than ever, to challenge new and old nuclear facilities. Much of it can be accessed at the website of the Committee for Nuclear Responsibility at http://www.ratical.org/radiation/CNR/. His radiation discoveries and revelations have not been refuted, but rather are deliberately ignored by the nuclear power promoters, while many of his conclusions have been confirmed decades later by the radiation establishment.

Some of Gofman's key scientific contributions include:

NO SAFE THRESHOLD FOR IONIZING RADIATION EXPOSURE:

His 1981 Radiation and Human Health and 1990 Radiation-Induced Cancer from Low Dose Exposures: An Independent Analysis, disproved a safe dose of radiation, justifying his statement that "Nuclear power is mass, random, premeditated murder." He adamantly challenged the permissible doses created to legalize nuclear poisoning of the public and environment. By estimating the number of cancers from "legal" exposures he forced the Atomic Energy Commission to make its own estimates, thus admitting harm from radiation. The national and international radiation committees have had to concur that there is no safe threshold.

RADIATION CAUSES OTHER HEALTH EFFECTS IN ADDITION TO CANCER:

As early as 1970, Gofman predicted that ionizing radiation, which can break chromosomes-- causing deletions, translocations and double strand DNA breaks--would cause increased suffering from fatal diseases and birth defects from that chromosome damage, in the exposed population. (See his 1992 paper at www.ratical.org/radiation/CNR/RICI.html.) Gofman's 1981 *Radiation and Human*

Health (pp. 788-791) indicates that ionizing radiation causes 6 to 100 times more heart disease, cancer, diabetes, anemia, schizophrenia, ulcers and many other killers (referred to as "Irregularly Inherited Diseases") than assumed by the self-appointed radiation committees. His 1993 paper, "Asleep at the Wheel"

(www.ratical.org/radiation/CNR/Asleep@Wheel.html), explains how the Hiroshima and Nagasaki follow-up studies were not designed to find genetic health effects in future generations. Thus, claims of no genetic effects from radiation are not valid.

CORONARY or ISCHEMIC HEART DISEASE:

His 1999 book *Radiation from Medical Procedures in the Pathogenesis of Cancer and Ischemic Heart Disease*, like much of John Gofman's prescient work, might take a while more to be understood and used. An observation he made is that cancer and ischemic heart disease "behave like each other and not like most other causes of death," in response to ionizing radiation exposure. He found a pattern of more cancer and ischemic heart disease in areas where the population is likely receiving more radiation from medical procedures. Chapters 42 and 45 of his 1999 book list the epidemiological similarities and hypothesize possible mechanisms for radiation causing heart disease by inducing mini-tumors in the coronary arteries. Since heart disease is a major cause of death, confirming radiation as a cause could double the health risk attributable to radiation. As a precaution, preventing unnecessary exposures and deliberate releases of ionizing radioactivity could be twice as important.

MEDICAL X-RAYS ARE NOT HARMLESS, in fact they can be more harmful than gamma rays. Gofman confronted the resistance of the medical community to measure and reduce x-ray doses to patients and progress is beginning, due to his logical, well-documented efforts.

CHALLENGED RELIANCE ON HIROSHIMA AND NAGASAKI ATOM BOMB SURVIVOR STUDIES as the basis for radiation risk estimates routinely used worldwide: His 1990 book *Radiation-Induced Cancer from Low Dose Exposures: An Independent Analysis*, criticized the Radiation Effects Research Foundation for retroactively changing the Hiroshima and Nagasaki database. Some of the survivors' estimated doses were changed *after* the results started coming in, a completely unacceptable destruction of the value of the study. In a later, unpublished paper, Dr. Gofman pointed out that "the results of the Atomic Bomb Survivor Study (ABSS) are also weakened by the variation in X-ray doses received by the participants both before and after the bombing in 1945."

CHERNOBYL RISKS AND ROUTINE RELEASES UNACCEPTABLE:

Gofman calculated that there would be in the range of 1,000,000 cancers caused from the cesium-137 released from the Chernobyl nuclear power reactor meltdown in 1986. This is not counting other health effects or exposure to other radioactivity also released. He

then calculated that without an accident, with 99.9% containment, 4 times as much cesium-137 is routinely released from 100 (1000 megawatt) nuclear reactors operating for 25 years. He said, "This assault on human health could occur without blowing the roof off any single plant." Now that's something to consider as new reactors are proposed. Gofman was among the first to assert that solar energy in *all* its forms (including light, heat, wind, biomass) could easily make nuclear power unnecessary when combined with more *efficient* use of energy.

John Gofman's wonderful wife, Dr. Helen Fahl Gofman, died in 2004. According to their only son, Dr. John David Gofman and CNR colleague, Egan O'Connor, "During his lifetime, Dr. [John W.] Gofman devoted his intelligence and energy into two main channels. One was his effort to help prevent the miseries of heart disease, cancer, and heritable afflictions. The other was his effort to advance appreciation of the basic human right and duty, and to reduce the realms of tyranny and corruption... he died feeling that he had made some positive differences, ...he died with a grateful heart for having enjoyed his long life intensely... for at least 85 years of GOOD health" and for his family, friends, colleagues, supporters, and the "many dedicated grassroots activists in our democracy."

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Diane D'Arrigo NIRS September 2007