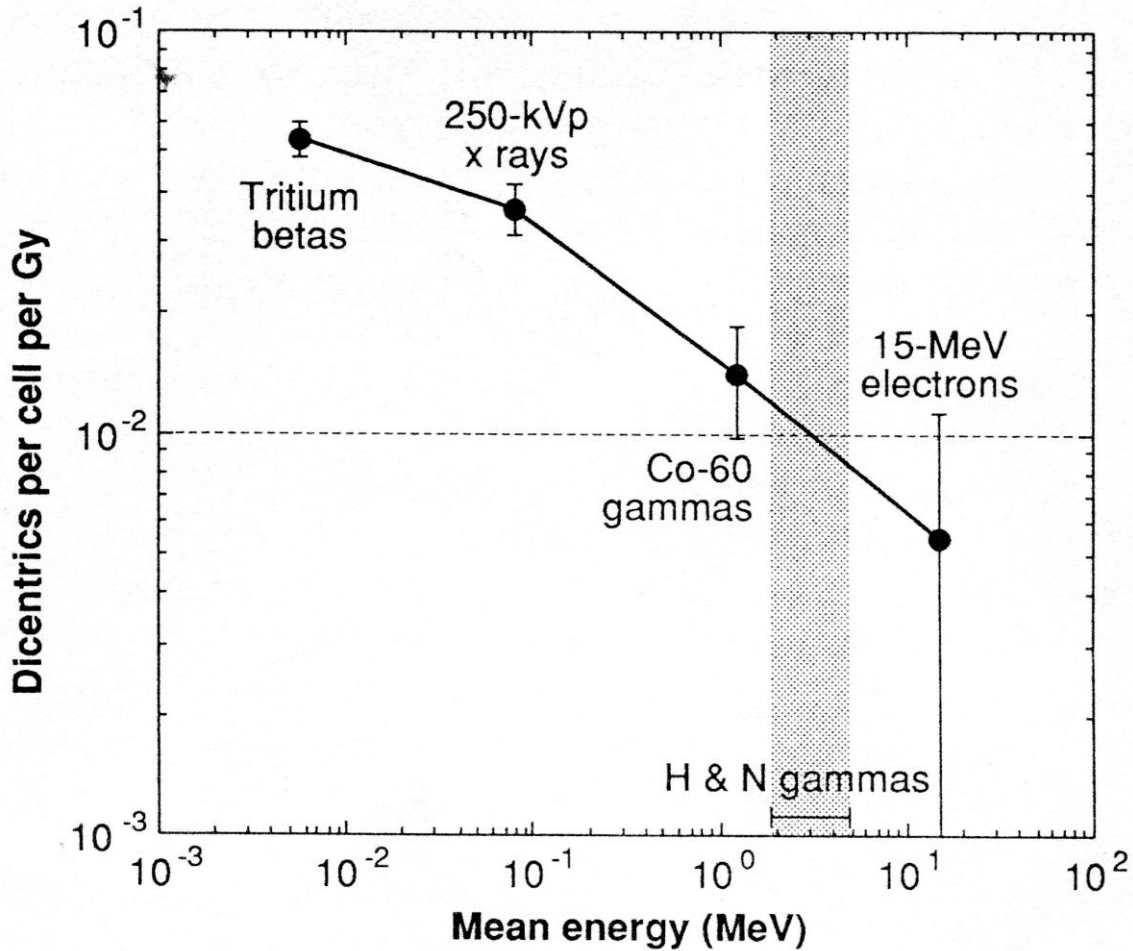


How Reliable are the Risk Estimates Gained from the Japanese A-bomb Survivors in Cases of Chronical Low-Dose Exposures?

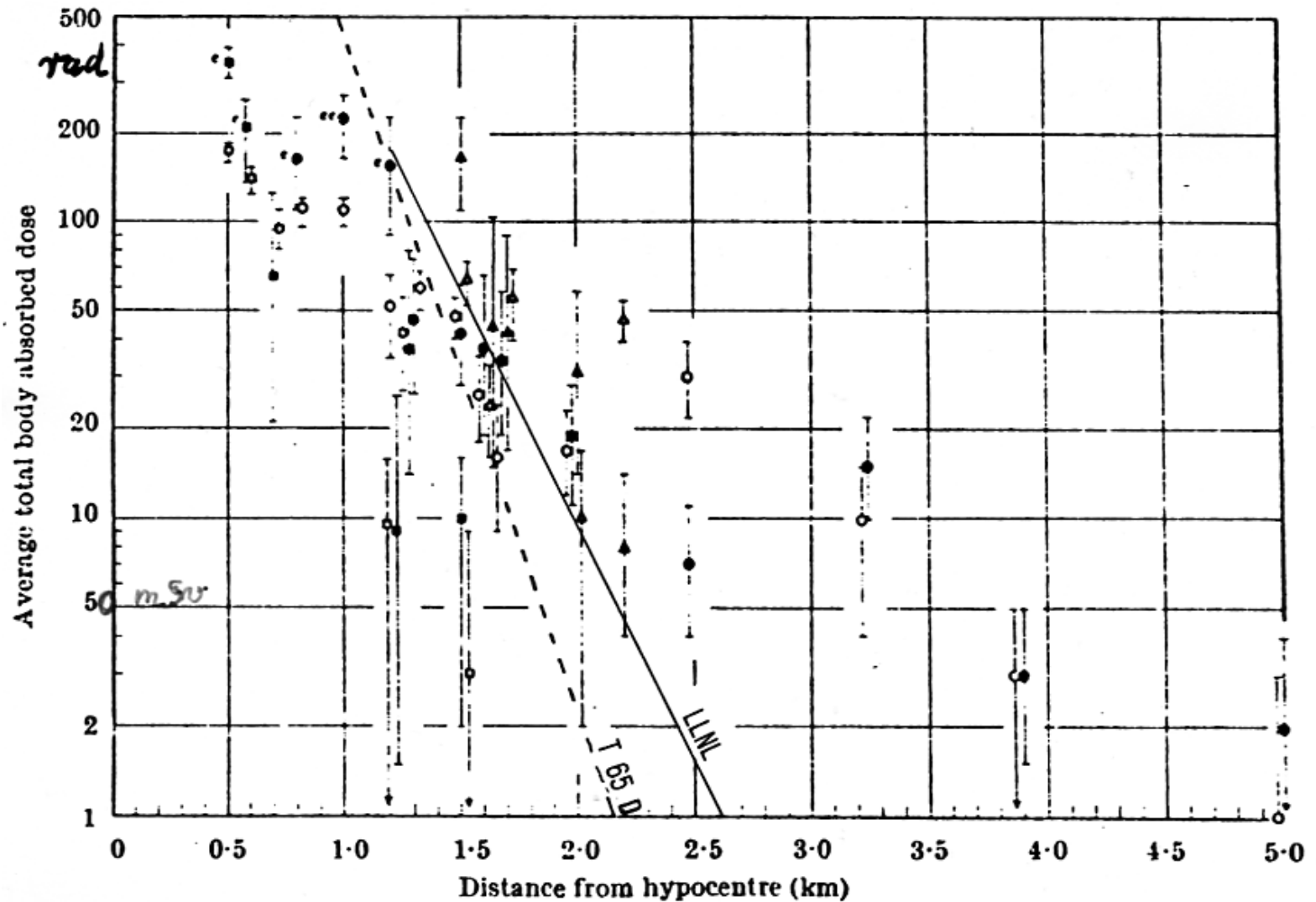
Inge Schmitz-Feuerhake
German Society for Radiation Protection

Problems in using the Japanese A-bomb survivors studied by the RERF as a reference for “normal” populations exposed by low-level radiations

Category	
Registration	Lack of the first 5 years after the bombardment
Epidemiology	„Survival of the fittest“ Social discrimination Genetic differences
RERF-Dosimetry	ICRP: Overestimation of high dose-rate effects (DDREF) Lower effectiveness of high energetic gamma-rays Neglect of residual radiations



**The biological effectiveness of low-LET radiations
(Straume 1995)**



Whole body dose by chromosome aberrations in A-bomb survivors in relation to the distance from hypocentre in Hiroshima, from Sasaki & Miyata 1968. For comparison calculated doses for the ABCC-RERF Life Span Study

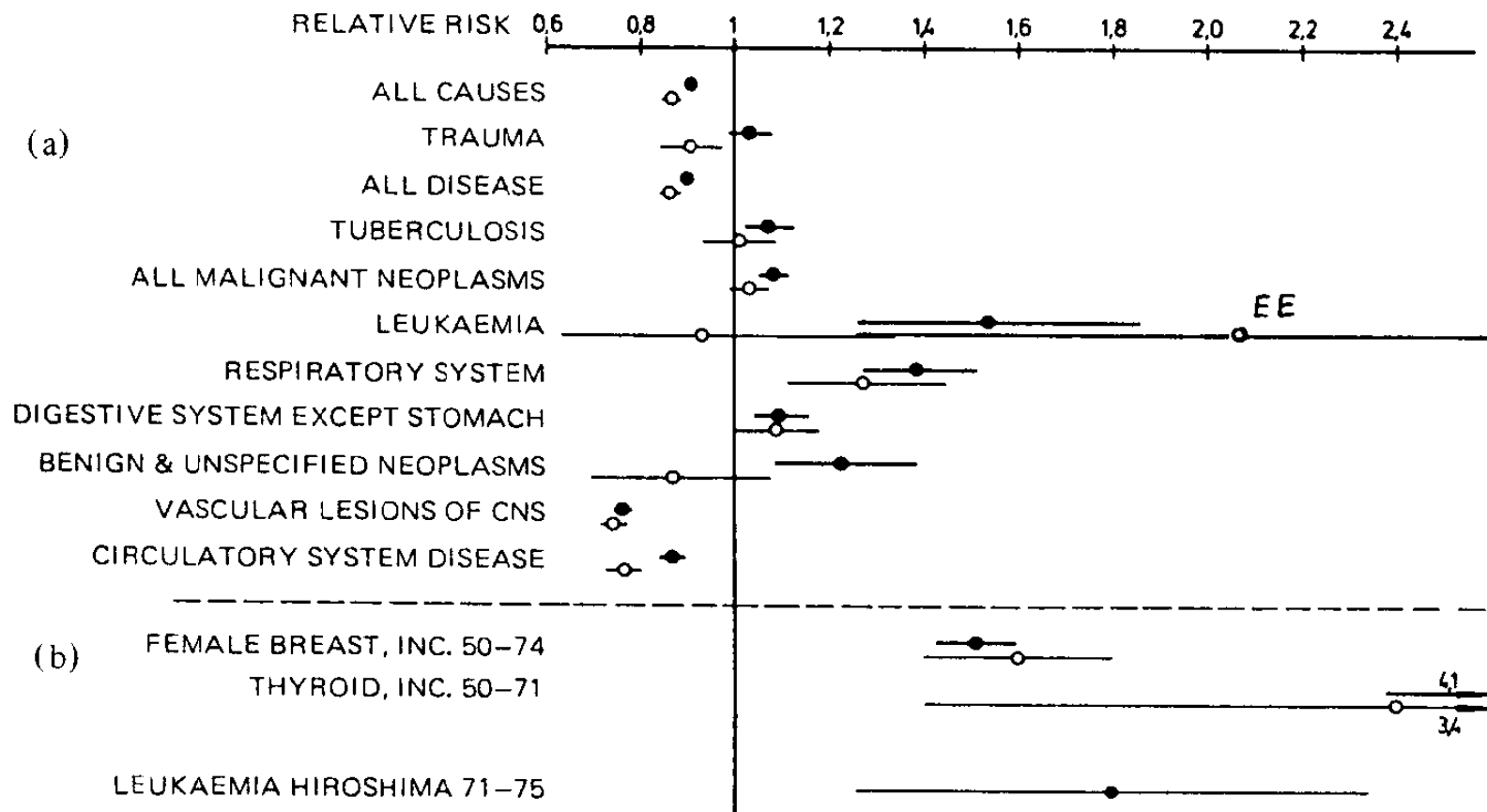


FIG.2. Standard mortality and incidence rates for cancer and other causes compared to national rates for controls in Hiroshima and Nagasaki:

—●— group 0-9 rad T65D; —○— group NIC.

(a) mortality up to 1972 (and standard deviations) from ABCC [5], except EE;

(b) breast cancer incidence [6], thyroid cancer [7, 8], leukaemia 1971-75 [9];

EE = leukaemia in early entrants.