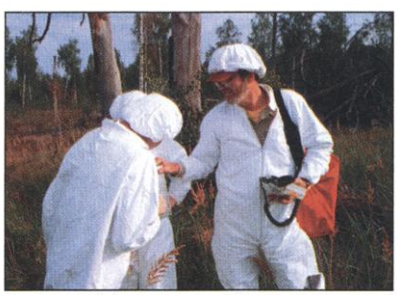
The Future of UNSCEAR

THE EXISTENCE OF THE UNITED NATIONS Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) is in danger. Dramatic decreases in funding have virtually paralyzed its activities: This year the Committee was unable to convene to continue its scientific work.

Established in 1955, UNSCEAR compiles scientific data on the sources of ionizing radiation and assesses their impact on humans and the environment. The Committee reports directly to the UN General Assembly. The Committee is composed of 21 member states, and about 100 people work for it: three members of the Secretariat, about 80 members of national delegations, and a rotating quorum of about one dozen consultants, internationally recognized experts in the field who are recruited by the Secretariat. Under the guidance of the Secretary, the consultants draft scientific documents requested by the Committee for review and discussion.



Cleanup efforts at Chernobyl. UNSCEAR produced a report on the health effects of ionizing radiation from the Chernobyl accident.

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The Committee has estimated exposures from nuclear test explosions; civilian and military nuclear fuel cycles; medical uses of radiation; occupations involving radiation; nuclear accidents; and natural radiation. The Committee has also studied the basic biological processes needed for understanding the mechanisms of somatic and genetic effects of radiation and developed a highly effective and competent method of measured authoritative reviewing of the original scientific information.

In its 1994 report, UNSCEAR confirmed for the first time the existence of adaptive and beneficial effects of low levels of radiation. In the 2000 report on the health effects of the Chernobyl accident, the Committee estimated that except for the 30 deaths of power plant employees and firemen and an increase (almost entirely treatable) of childhood thyroid cancer, no increase in overall cancer incidence or mortality and no increase of hereditary disorders have been observed that could be attributed to ionizing radiation.

Because of the high standard and objectivity of its work, UNSCEAR has become the most authoritative international scientific body in matters of radiation risk. UNSCEAR's assessments are one of the factors driving the nuclear atmospheric test ban treaty and constitute an objective and independent basis for setting regulations for radiation protection.

The UN General Assembly has endorsed the work of UNSCEAR in its annual resolutions, including the most recent one in which it "commends [UNSCEAR] for the valuable contribution it has been making in the course of the past forty-six years, since its inception, to wider knowledge and understanding of the levels, effects and risks of ionizing radiation, and for fulfilling its original mandate with scientific authority and independence of judgement" (*1*).

Until about 1992, the funds provided to UNSCEAR by the UN were lean, but adequate for its functioning. Since then, per annum allocations have been systematically decreased, with 2002 funding at about 50% of the 1992 level. The actual decrease is even more marked, as these figures are not adjusted for inflation. It is difficult to understand why the UN could accept a situation where a lack of about $100,000 to $300,000 a year is allowed to pose a threat to UNSCEAR's very existence. It appears to me that the fiscal difficulties began when UNSCEAR financing was arranged via the UN Environmental Programme (UNEP) in Nairobi. A divorce of UNSCEAR from UNEP might be a possible remedy. Dissolution of UNSCEAR would be an immeasurable loss to world science and to future development of the radiation protection system.

To save UNSCEAR, a return to the funding level of 10 years ago is necessary. To this end, political will is needed in the UN General Assembly and in its Fourth Committee. Those who are concerned about the future of UNSCEAR can urge their governments to support the further existence of the Committee within the UN.

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Reference
1. A/RES/56/50 of 10 December 2001; released 14 February 2002.

Everything Old Is New Again?

IN THEIR REPORT "MIDBRAIN CONTROL OF three-dimensional head orientation," E. M. Klier *et al.* (15 Feb., p. 1314) describe electrical stimulation and muscimol injection into the interstitial nucleus of Cajal (INC) in freely moving monkeys. They conclude that the INC is a key integrator for head posture and suggest that this may be the site of disturbance in the human movement disorder torticollis.

As in many fields of science and medicine, "everything old is new again." In 1954, Hassler and Hess published original data in German (*1*), and these results were summarized in English in 1960 (*2*). This summary stated that "the mechanism responsible for rotation around the longitudinal axis lies in the nucleus interstitialis of Cajal..." (*2*, p. 891) and that "weak monopolar stimuli ... was able to produce rotatory movements of the head around the longitudinal axis toward the side of stimulation..." (*2*, p. 890). Furthermore, this nucleus and the surrounding regions have been explored in humans using electrical stimulation during stereotactic surgery for torticollis. K. Sano *et al.* (*3*) reported that vertical head movements were produced by stimulation in this region and that radio frequency lesions relieved retrocollis in three of five patients. Hassler preferred one of the efferent projection targets of the INC, the ventro-oralis internus thalami, as a target for stereotactic surgery for torticollis (*4*) and the prestitial nucleus for retrocollis (*5*).