

THE REPORTS OF INDEPENDENT EXPERTS AND MEDICAL PUBLICATIONS ON HEALTH CONSEQUENCES OF THE CHERNOBYL EXPLOSION

Michel Fernex - January 2005

(This introduction to the series of articles, published in the **Swiss Medical Weekly** subsequent to the Basle symposium in 2003, gives a brief resumé of the content of the papers by the Belarus scientists and helps contextualise the debate surrounding the "Independent experts".)

In the foreword to the report of the UN "Office for the Coordination of Humanitarian Affairs" (OCHA), on "Chernobyl, an ongoing catastrophe", Geneva 2000, the Secretary-General of the United Nations (UN), Kofi Annan, evoked 9 million victims of Chernobyl, a number which is still growing, affecting future generations.

The promoters of atomic industries considered the message of Kofi Annan as "unnecessarily panicking". At the UN General Assembly, in December 2000, the UNSCEAR report, minimizing, as usual the health consequences of Chernobyl, was accepted without vote, despite the fact that the three most affected countries, Russia, Ukraine and Belarus, had firmly protested in writing (See letter addressed to the UN Secretary-General, dated 12 October 2000, from the Ambassador Plenipotentiary Sergey Ling, with signatures of six of the most renowned professors of medicine of Belarus, paragraph 4 :

"The main reason why annex J, "Exposures and effects of the Chernobyl accident" cannot be fully satisfactory to the scientific community of Belarus is that a number of the important results achieved in Belarus appear to be outside the field of vision of UNSCEAR. This applies, in the first place to the new scientific research data, including epidemiological data, obtained in recent years, and the results of the study teratogenic and genetic of the Chernobyl accident...."

This official document was co-signed by :

- **Professor V.I. Ternov**
- **Professor E.F.Konoplya**
- **Professor V.A. Ostapenko**
- **Professor Y.E.Kenigsberg**
- **Professor A.E. Okeanov**

For Dr. L.E. Holm (UNSCEAR), the radiological consequences of Chernobyl are limited to 30 deaths, some hundred cases of acute radiation syndrome, and nearly 2000 infant and teenage thyroid cancers. According to the UNSCEAR representative at the Kiev WHO meeting, 2001, Dr. Gentner, only peer reviewed documents are accepted by UNSCEAR. These reviewers, however, are either French CEA (Comité pour l'Energie Atomique) or Los Alamos experts - both structures involved with nuclear weapon industries. ([See script of the TV documentary "Atomic lies", April 2003](#), Switzerland. Film obtainable at: CH-6845,

Origlio, from Wladimir Tchertkoff).

According to the "experts", atomic power plants are safe. Unfortunately, however, most of such experts have close links with the atomic lobby. The International Agency for Atomic Energy (IAEA), reports directly to the Security Council of the UN, the very top of the UN-hierarchy.

When promoting new atomic plants, like the French EPR, experts claim that this "new" model is ten times more secure than the previous ones, which logically means that the present power plants are ten times more dangerous. Even lobby representatives are forced to admit that atomic facilities are no exception to human error - the real cause of the Chernobyl disaster - and they are aware that no defense against modern terrorism is conceivable. An earthquake, comparable to that in the Indian Ocean in 2004, would lead to the destruction of groups of atomic plants, e.g. in the Rhone-valley.

Instead of immediately attempting to cover up the consequences of Chernobyl, the authorities should have appealed to international solidarity, comparable to that which was orchestrated by the UN after the Tsunami catastrophe. This would have spared millions of victims. There should have been prompt evacuation of children and pregnant women, as well as the distribution of stable iodine up to 500 km or more from the exploded and burning reactor. This measure proposed in Belarus by Nesterenko, and confirmed later by Baverstock in his 1999 WHO report, was taken in Poland, without incurring problems of tolerability. This would have reduced not only the number of thyroid cancers but also other diseases. International financial help for resettlement would have saved millions of lives, provided communities for refugees, favoured democracy, accelerated the peaceful development of the republics born after the Perestroika. Instead of all this however, the Soviet Union issued on May 28th a decree classifying as "State Secret" all Chernobyl-related documents and reports; This decree has not been to this day formally suppressed.

Based on much criticised studies of the health consequences of the bombing of Japan, in 1945, the military and commercial atomic lobby continues to disregard information sources on the health hazards of the accumulation of artificial radionuclides in the environment. This subject (with the exception of the finally accepted children's thyroid cancer, representing currently no more than 0.4% of the cancers in Belarus) can in fact prove to be dangerous for a medical career. Work on hitherto unrecognised diseases caused by ionizing radiation may lead to intimidation, loss of jobs in hospitals, or the author may even be put in jail, and later sentenced after an unfair trial, as was the case for Professor Yuri Bandazhevsky, prisoner of conscience of Amnesty International.

The censorship by the IAEA of the proceedings of the 3-day WHO-Conference in Geneva on this subject, in November 1995, and a similar ending of the WHO-Kiev conference on Chernobyl in 2001, have been well illustrated by the film of W. Tchertkoff, "Nuclear Controversies" aired twice by the Swiss TV, in 2003.

The "International Physicians for the prevention of Nuclear War" (**Swiss Section of IPPNW, Nobel Peace Prize 1985**) have attempted to inform on the consequences of the persisting presence of radiocesium in the soil in one third of the republic of Belarus, the country which received the highest fallout after Chernobyl.

Under the auspices of the Basel medical Faculty, PSR/IPPNW organised a scientific symposium, with the contribution of eight Belarus experts and physicians. The papers dealt primarily with children's diseases, excluding those in adults, where the pro-nuclear lobby immediately bring in the role of tobacco, radiophobia, or alcohol. Most children in highly contaminated regions of Belarus have, since kindergarten, received clean food, twice daily, free of charge in the school canteen. Most of these children spend also 3 weeks in a sanatorium in a clean radiological environment. Kofi Annan strongly argued for focusing attention on children, when writing : "... the exact number of the victims may never be known. But three million children require physical treatment and not until 2016, at the earliest, will we know the full number of those likely to develop serious medical conditions. Before becoming irreversible, radiological damage from Chernobyl must be detected among

children, cured, and relapses prevented”.

Belorussian speakers in Basel, January 15, 2003.

Out of eight speakers from the most affected countries at the Basel Symposium, five published their presentations in a peer reviewed medical Journal : Swiss Medical Weekly (www.smw.ch which may be consulted free of charge).

1. **Prof. Yuri I. Bandazhevsky**, personally invited to the Symposium by the Dean of the Basel Medical Faculty, could not come because he was serving a prison sentence in a “Gulag”. His Medical Institute, located in the most seriously radiocontaminated Chernobyl region, carried out research into the consequences of chronic incorporation of radionuclides, and especially radiocesium in the organism. His paper, presented, in his absence, by Professor Michel Fernex, shows a 50-fold increase of Cs-137 in some vital organs. This means that the dose calculated for a child, based on the average radiation load measured in athropogammameters, may, for the endocrine glands, thymus, heart, and placenta, underestimate the real level by a factor of 10 to 20.

2. **The paper by Professor Wassily B. Nesterenko**, in charge of radioprotection in Belarus when the Chernobyl explosion occurred, is only part of his Basel presentation which described the measured values of the Cs-137 burden in 150,000 schoolchildren, the measured contamination of the food chain in this area, and the importance of radioprotective measures. The paper is a unique double-blind, controlled trial, with oral apple-pectin versus placebo. Claims in favor or against pectin courses, have never presented irrefutable scientific evidence of such quality. The difference between the two groups is statistically highly significant ($p < 0.01$). This is the indispensable scientific evidence required to support pectin cures as radioprotective measures.. The following findings are also relevant : all children in the “pectin group” had “safe” values (under 15 Bq/kg bodyweight (BW)) after the pectin cure, while none of the children of the group receiving a placebo instead of pectin had values below 20 Bq/kg BW, both groups receiving radiologically clean food and vitamins,.

3. **The paper by Dr. Galina Bandazhevskaya**, pediatrician and cardiologist, is complementary to Nesterenko's presentation. First of all, she confirms that the differences found in the Cs-137 burden in three groups of school children from the same area, selected for either very low (<5.0 Bq/kg BW), moderate (38 Bq/kg), or substantial (122 Bq/kg) Cs-137 levels, were directly dependent on whether they had access to clean or radiocontaminated food at home. At entry, the percentages of children with cardiac symptoms, ECG changes, and arterial hypertension, were proportional to the Cs-137 burden. There was a strikingly significant parallel reduction of Cs-137 burden in the organism, and of ECG anomalies, in the 60 children receiving apple-pectin for 16 days.

4. **Yuri Dubrova, geneticist, from the Ukraine**, working with the famous research team of A.J. Jeffreys of Leicester, found genetic anomalies, proportionally to the Cs-137-contamination of the soil. He found also that children born before Chernobyl, had lower mutation rates compared with their brothers and sisters, born from the same parents but irradiated after Chernobyl, in the same area. In Semipalatinsk, where the population was radio-contaminated by atomic bomb testing, the mutation rates, from fathers to children, and later to grand children are still increasing. Such persisting genomic instability in successive generations, was confirmed in wild rodents from Belarus (from 20 to 250 km from Chernobyl), after 20 generations by Rose I. Goncharova & N.I. Ryabokon from the Institute of Genetics and Cytology, of the National Academy of Science of Belarus.

5. **Professor Aleksey E. Okeanov**, who was in charge of the Cancer Registry of Belarus created long before the Chernobyl catastrophe, showed the increasing incidence of different cancers, proportional to exposure to the Chernobyl fallout. Cancers and leukemia have become more frequent in the most exposed populations. He found that amongst liquidators the most significant increase in the incidence of malignant tumors depended on the duration, being significantly more frequent in those who had been obliged to work in the 30 km zone in

Chernobyl for a period of more than one month. (Proceedings of the IAEA Conference of April 1996, in Vienna).

Professor G. Lazjuk also reported on a significant increase of the congenital malformations in new-born babies, especially those due to genetic anomalies, in families living in areas with >15 Ci of Cs-137/km². The malformation rate was proportional to the radiocontamination, except when refugees from non-contaminated territories, e.g. The Caucasus, settled in the region. Unfortunately, Professor Lazjuk was not in a position to submit his paper

We are still working on three important papers by Belarus pediatricians which were presented in Basel.

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