



Chornobyl Research Program  
SCIENTIFIC AND MANAGEMENT PROGRESS REPORT  
1 May 2000 to 31 July 2000

Submitted by: Terry L. Thomas, Ph.D.

A handwritten signature in black ink that reads "Terry L. Thomas".

Date: 18 August 2000

I. Progress on "Epidemiologic Studies of Radiation Induced Thyroid Disease in Belarus (BelAm Thyroid Project) and Ukraine (UkrAm Thyroid Project)

A. BelAm Thyroid Project

The study began in 1997 with the selection of individuals to be included in the study cohort from the file of thyroid dose measurements at the Institute of Biophysics in Moscow (Selection 1). Numerous sources were used to trace subjects, and current addresses were located for 14,033 of these subjects as of December 31, 1999. Selection 1 did not result in a sufficient number of responses to achieve the target cohort size of 12,000 subjects. Thus, in December 1999, the remainder of individuals in the dose file were selected and were traced for current address (Selection 2). Invitation letters were sent to 7,000 subjects during the quarter, and 1,278 subjects were screened, bringing the total number of screening examinations conducted to about 10,091 (8,521 screened for the first time, 1,570 screened for the second time, and 313 subjects reporting for follow-up of abnormal findings). The Project Director has been encouraged to develop a brochure describing the project and to add incentives, such as reimbursement for travel. As of 15 May 2000, newly diagnosed thyroid cancer was found in 33 of the screened subjects. Data entry is from 86% to 99% complete for most of the data collection forms for subjects who have been screened. A new fixed screening center has begun conducting examinations in Gomel.

In order to be able to provide funds to reimburse study participants for their travel expenses in reaching the screening sites, a contact was made with Belarusian Red Cross to serve as a conduit for this banking transaction. The Red Cross would manage these funds and provide quarterly allocation to the project agent for purchase of food items and other necessities (equivalent to US \$5 for each subject). A two year contract will be awarded, and documentation is being prepared identifying financial institutions which would be involved in funds transfer.

B. UkrAm Thyroid Project

The study in Ukraine began also in 1997 with the selection of 20,071 subjects (Selection 1) to be included in the study cohort selected from the list of people with thyroid

dose measurements. Tracing efforts resulted in the location of 13,493 subjects. Because Selection 1 did not generate sufficient response to achieve the target study population size, a second selection of 14,000 subjects (Selection 2) was taken in April 2000. These subjects were traced for current address. The brochure describing the study and reimbursement for travel expenses (equivalent to US \$5) are being provided to subjects. As of 31 July 2000, a total of 10,163 subjects (2,654 of them from Selection 2) had been examined, approximately 2,500 of them since the end of April 2000; thus the increased screening rate has been maintained during the last quarter. As of 1 June 2000, 14 newly diagnosed thyroid carcinomas were identified in the study cohort, representing 1 new case since the last quarter. The Ukrainians used the new quarterly report format for their most recent report; however, several revisions were made to the format based on their experience with the first draft, and the next quarterly report will reflect those revisions.

### C. Other Progress

American scientists visited Belarus and Ukraine in June 2000 and held plenary sessions as well as small group discussions in both countries to review the status of the studies. At these meetings, the new format for the quarterly progress reports was revised and finalized. In Belarus, the American team visited the new Gomel screening center and observed its operations. A major focus of the plenary sessions in both countries was preparation for the second screening cycle which will begin early in 2001.

The American team met at the end of July and drafted a series of recommendations for modifications to the operations manuals for the second screening cycle. These modifications will be discussed and finalized in upcoming small group meetings and the Tri-National meeting to be held in November 2000.

A joint dosimetry meeting was held in May 2000. Its main purposes were to review the preparation of joint thyroid dosimetry questionnaires, to discuss the ways in which to evaluate the reliability of the answers provided during the dosimetry interviews, and to make plans for the preparation of a common methodology to estimate individual thyroid doses. Following that meeting, the American team developed a final draft of the dosimetry questionnaires for study subjects and their parents and forwarded it to their Belarusian and Ukrainian counterparts for translation and discussion at the upcoming dosimetry meeting in September 2000.

A Tri-National plenary session to assess study progress is planned for November in the United States. Belarusian, Ukrainian, and U.S. scientists will participate in a series of discussions and workshops to be held in Rockville, Maryland.

II. Progress on "Study of Leukemia, Lymphoma, and Related Disorders in Ukrainian Clean-up Workers Following the Chornobyl Accident"

The protocol was approved by NCI's Chornobyl Oversight Panel and has been submitted for IRB review at NCI.

The Ukrainian team has vigorously pursued the tasks agreed upon for the interim period between the end of phase 1 and the beginning of phase 2. Investigators have visited the proposed study Oblasts to discuss the phase 2 plan with the local public health services, regional oncology dispensaries, the local departments of the Chornobyl State Registry; to determine the potential sources of information for constructing the Leukemia Registry; and to select the local staff persons who will work on the study and acquaint them with the objectives of the study. In all Oblasts visited as of the date of this report, the consent of local health officials was easily obtained, the sources of information on leukemia cases were identified, and the local staff persons were selected. Members of the American team visited Kiev in July to review progress and to evaluate the data collection process underway in Cherkassy, one of the study oblasts. Following this visit, a series of recommendations regarding the identification of record sources and searching records to construct the Leukemia Registry was compiled and sent to the Ukrainian team. An outline of the study operations manual was prepared, and instructions for constructing the Leukemia Registry were drafted.

Efforts are pursued to determine the best way to estimate individual doses for all subjects. Within that framework, a pilot study to determine the usefulness of Ministry of Defense records is underway.

III. The quarterly progress report for each project is enclosed.